DOCUMENT RESUME

ED 270 239 RC 015 717

AUTHOR	So, Alvin Y.
TITLE	Hispanic Education in the 1980s: Issues and Analyses.
PUB DATE	85
NOTE	256p.
PUB TYPE	Information Analyses (070)
EDRS PRICE	MF01/PC11 Plus Postage.
DESCRIPTORS	*Academic Achievement; Access to Education; Bias; *Cultural Influences; Disadvantaged; High Achievement; *Hispanic Americans; Labeling (of Persons); *Language Attitudes; Language of Instruction; Low Achievement; Minority Groups; Parent Aspiration; Postsecondary Education; Secondary Education; Socioeconomic Status; Spanish Speaking; *Student Characteristics; Student Financial Aid; Teacher Attitudes
IDENTIFIERS	*Educational Issues; *High School and Beyond (NCES)

ABSTRACT

Written in the social context of the United States in the 1980s and based on information about Hispanic students, parents, teachers, and schools contained in the national High School and Beyond data set, this book addresses critical issues regarding the status of Hispanic education of interest to Hispanics, policymakers, and academicians. Part I offers a brief historical review and describes the data set. Part II considers the cultural deprivation perspective, focusing on high-achieving Hispanic language minority students from low socioeconomic backgrounds. The two chapters in this part question whether it is necessary to strip Hispanic disadvantaged students of their language and cultural identity in order to promote academic achievement and examine the assertion that Hispanic parents have low educational aspirations for their children and do not exhibit interest in and/or encouragement of their children's education. Part III probes issues relating to the structural perspective: characteristics of high density ethnic minority barrio schools and bias on the part of both Anglo and Hispanic teachers toward Hispanic students. Part IV examines issues emerging in the early 1980s: impact of language of instruction on educational achievement; whether language minority background or low socioeconomic status is more important in explaining Hispanic educational attainment; and consequences of cutbacks in financial aid programs on the college-going behavior of Hispanic students. Part V contains a concluding chapter drawing together the implications of the study. (NEC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED270239

MAY 1986
RECEIVED
ERIC/CRESS

Hispanic Education in the 1980s:

Issues and Analyses

Alvin Y. So

Department of Sociology
The University of Hawaii
Honolulu, HI 96822

1985

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY
Alvin Y. So.

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☑ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

RC 015717

Tables of Contents

Page

List of Tables and Figures 2

Preface 6

Part I: Introduction

1. Introduction 11
2. The High School And Beyond Data Set 18

Part II. The Cultural Deprivation Perspective

3. The High-achieving Disadvantaged Students 36
4. The Aspiration of Hispanic Parents 64

Part III. The Structural Perspective

5. The Barrio Schools 96
6. Teacher's Ethnicity and Hispanic Students 137

Part IV. Issues In The 1980s

7. The Impact of Language of Instruction on Educational Achievement 160
8. What Matters: The Relative Impact of Language Background and Socioeconomic Status on Educational Achievement 181
9. The Financing of College Education by Hispanic Parents 209

Part V: Conclusion

10. Conclusion 235

List of Tables

Chapter 2

Page

2.1 A list of the data files in the HS&B data set 31

2.2 Sample characteristics of the language file 32

Chapter 3

3.1 Values for coefficients in Figure 3.1 58

3.2 Correlation matrix for the Lisrel model 59

Chapter 4

4.1 Ethnic differences in parental aspiration 85

4.2 Parental educational background and parental aspiration 86

4.3 Parental aspiration and perceived child expectation 87

4.4 When do Hispanic parents think that their children would someday be going to a college or an university? 88

4.5 Hispanic parental aspiration and children's deferred gratification 89

4.6 Social factors in Hispanic parental aspiration 90

4.7 A multiple regression analysis on Hispanic parental aspiration (separately for father and mother) 91

Chapter 5

Page

5.1 Types of schools and their characteristics 125

5.2 An estimation of ethnic segregation in U.S. public school 126

5.3 Ethnic composition within the schools and administrators' attitudes toward the parents 127

5.4 School finance and participation in federal programs 128

5.5 Facilities 129

5.6 Teachers 130

5.7 Curriculum 131

5.8 School rules and disciplinary problems 132

5.9 Student achievement 133

5.10 Correlation ratios between school characteristics and absenteeism/cutting classes 134

Chapter 6

6.1 Teacher ethnicity and the labeling of Hispanic students 154

6.2 The labeling of good Hispanic students 155

6.3 The effectiveness of teacher labeling 156

Chapter 7

7.1 The regression equations for reading test scores 176

7.2 Predicted reading test scores from the regression equation .. 177

7.3 Means, standard deviations, and correlations 178

Chapter 8

Page

8.1 Sample characteristics of Hispanic LES/NES students 200

8.2 Regression equations and predicted reading scores for SES and medium of instruction groups 201

8.3 Regression equations and predicted math scores for SES and medium of instruction groups 203

Chapter 9

9.1 The issue of affordability 229

9.2 The issue of relevancy 230

9.3 The issue of impact 231

List of Figures

Chapter 3 Page

3.1 A Lisrel model of educational attainment for disadvantaged Hispanic students 57

Chapter

7.1 Predicted reading achievement and socioeconomic status students from different classroom language environments 179

7.2 Predicted math achievement and socioeconomic status for students from different classroom language achievements 180

Chapter 8

8.1 Reading test scores of White students 206

8.2 Reading test scores of Hispanic students 207

8.3 How would the removal of the effects of SES and ethnicity reduce the reading test achievement gap between English monolingual and other-language dominant bilingual students? 208

Preface

This book is written in the social context of the United States in the 1980s. In the early years of this decade, we face strong economic recession with unemployment and interest rates hitting record high levels. We also see a rise of political conservatism which places higher value on 'world order' than on domestic welfare.

These economic and political changes in the early 1980s have important implications for the status of Hispanic education. Tuition rates have been on the rise, and financial aids to needy students have been cut. Attempts have been made to eliminate or restructure bilingual programs, and 'soft' ethnic courses have been de-emphasized in favor of math and science education. There is a call to upgrade teacher's technical qualifications instead of recruiting minority and bilingual teachers, and we are witnessing a gradual re-emergence of the old cultural deprivation thesis which blames the inadequate effort of children for bad academic performance.

This book is an attempt to address some of the above issues by examining the rich information on Hispanic students, parents, teachers, and schools contained in the national High School and Beyond data set.

This book has its origin in a series of technical reports written for the National Center for Bilingual Research. As such, each chapter can be read in its own right, permitting the reader to select specific topics of interest. However, we have also included an introduction, which pulls all the issues together into a coherent framework, and a conclusion which spells out the contribution of our work.

The book is prepared for the following three audiences. First, it is for Hispanics because this book is about their educational processes. Second, it is for policy makers: It is hoped that our analyses will be useful for them in making informed decisions. Third, it is for academicians because this book is a scientific study of certain aspects of the American society. Obviously, these three groups will have different readings of this book. The Hispanics and the policy-makers may find the statistical analyses too detailed and too technical while the academicians may find them too simplistic. In addition, policy-makers may find discussions too theoretical, without full treatment of the implications of the analyses; while the academicians may find greater focus on policy issues, without exploring the theoretical advances implied by the findings.

I have tried hard to solve the perennial problem of understanding the world and making informed recommendations to change it. I have also tried to formulate simple statements out of complicated issues. While I may not have succeeded, it is hoped that this book moves in the the direction of appealing to Hispanics, policy makers, and academicians.

In closing, I want to express my gratitude to a number of friends and colleagues who helped to bring this book to its present form. I owe much to Dr. Kenyon Chan, who introduced me to the High School and Beyond data set and who coauthored Chapters 7 and 8. I am also grateful to Dr. Victor Rodriguez for his bright ideas which developed into several chapters of this book. I want to thank Dr. Amado Padilla, the Director of the National Center for Bilingual Research, for providing encouragement and give me a free hand to develop my ideas first into technical reports and then into this book. I also want to thank my two colleagues on the national data set project, Dr. Marsha Hirano-Nakanishi and Dr. Desdemona Cardosa, for opening my eyes to the importance of handling methodological issues and for teaching me how to use the Lisrel program. Dr. Arturo Romero shared his expertise on Hispanic parents, which helped me to formulate the ideas for the parent chapter. Dr. Robert Berdan and Maryellen Garcia provide a warmful environment while I was working at NCBR. Linda Carpenter served as more than an able editor in clarifying some of the ideas expressed here, she is one of the sharpest critics I have ever met. Angel Sanchez, Tony Hernandez, and Kim-Bor Yip had helped me on several occasions by carrying out library bibliographical work and running statistical programs. The support staff at the National Center for Bilingual Research, the two Lydias and the two

Sotos, professionally typed the tables of this book on short notice. It is to all these people that I offer my sincere thanks. As usual, I am not always able to follow the good advice and criticism of my colleages and friends. Consequently, it must be stressed that I am solely responsible for any mistakes in this book.

Finally, I want to dedicate this book to my wife, Judy Chan. She has been very considerate in letting me wake up very early in the morning and come home late at night in order to finish the technical reports and this book on time.

Section I: Introduction

Chapter 1. Introduction

This book is not intended to provide a comprehensive review of literature on Hispanic education. Instead, it focuses on certain critical issues relating to the conditions of education for Hispanics. In particular, chapters that follow address such issues as the consequence on college-going behavior of cut backs in financial aid programs; the impact of language of instruction on educational achievement; the relative influence of socioeconomic status and language background on educational achievement; the characteristics of the barrio schools and the quality of educational services delivered to Hispanic children; the phenomenon of teacher biase towards Hispanic students; the thesis that Hispanic children must be totally assimilated into the American society in order to do well in school; and the claim that Hispanic parents are uninterested in their children's education.

At first glance, it seems that these issues are highly independent of one another. However, the following brief historical review of how these issues arose, developed, and caught our attention will show that they are, to certain extent, linked together and shaped by the socio-political climates in the past two decades.

Historical Review

The mid-1960s seems to be a watershed in distinguishing two periods in Hispanic education. Before that time, Hispanic education literature was dominated by the cultural deprivation perspective. There were, of course, many varieties of this perspective, with the most extreme arguing for biological inferiority and cultural backwardness of Hispanic children. However, all proponents of the cultural deprivation perspective shared the belief that Hispanic children perform poorly in school because of deficiencies in Hispanic homes and Hispanic culture. Hispanic culture was said to be fatalistic, passive, and retreatist, lacking the necessary achievement motivation element to encourage success in school. Hispanic parents were said to be apathetic to their children's education because they themselves seldom finished higher education and they did not foresee any possibility that advanced education could help their children in the future.

For the cultural deprivationist, the solution to the low educational achievement of Hispanic children was to strip them of their cultural baggage and instill Anglo language, values, and styles of life in its place. Thus it was no historical coincidence that, before the 1960s, Hispanic children were not allowed to speak Spanish in school. There was also a total absence of courses that were culturally sensitive to their Hispanic heritage. Instead, Hispanic children were told to conform to the prevailing Anglo norms at school, such as talking like an

Anglo student, dressing like an Anglo student, cutting his/her hair like an Anglo student, etc.

From the mid-1960s onwards, however, the cultural deprivation perspective has been challenged by the structural perspective. Triggered and reinforced by the Anti-War campaign, the structural perspective was the historical product of the Chicano movement. Thus the 1960s saw an uprising of Hispanic children and parents in the Southwest, protesting the unfair treatment of Hispanic children in school.

The main thrust of the structural perspective was to place responsibility for locate the educational failure of Hispanic children at the educational institutional level instead of at the level of Hispanic homes and Hispanic culture. It's thesis was that Hispanic children failed in school, not because of cultural or social deficiencies, but because the schools they were attending were systematically failing them. High density Hispanic schools were said to offer inferior educational services to Hispanic children compared to services offered by high density Anglo schools to Anglo students. Further, Anglo teachers were reported to be racially ?iased toward Hispanic students, treating Anglo students much more favorably than they treated Hispanic students.

This structural perspective had important policy implications. It laid the foundation for many institutional reforms in the late 1960s and the early 1970s, such as massive recruitment of Hispanic bilingual teachers, improved finance of the barrio schools, and institutionalization of a curriculum that is culturally relevant to the needs of Hispanic students.

The focus of this reformation of Hispanic education, however, seems to have been mainly in the sphere of bilingual education. Many perceptive educational planners believed that bilingual education was the key to academic success because it facilitated smooth transition from a Spanish-speaking home to an all-English instruction classroom, bringing out the strengths of Hispanic language and culture in educational achievement. It was in this sphere that Hispanic educational reformation made most headway; and in the late 1960s and the early 1970s saw a mushrooming of bilingual educational programs in high density Hispanic schools.

The development of Hispanic education took another turn in the early 1980s with the rise of political conservatism and economic recession. Given the changing political and economic climates, institutional changes proposed by the structuralists, which had formerly been accepted or at least tolerated by educational planners and researchers, are now increasing under attack.

To date, criticism has been aimed mainly at the bilingual programs.

It is argued that bilingual education is an expensive program that never works to the advantage of Hispanic children. Such an argument is supported by research findings that Hispanic students who had participated in bilingual programs did no better in educational achievement than other non-participant Hispanic students from similiar social backgrounds.

Since bilingual programs are based upon the premise that the language minority status of Hispanic students hinders their educational achievement, the attack on bilingual programs naturally leads to the questioning of the validity of these premises. It is recently argued that Hispanic children did poorly in school because they are poor, not because of their language minority status. Following this logic of argument, some researchers suggest that it is more useful to improve the socioeconomic status of Hispanic children than to spend money on the expensive bilingual program that never works.

Another issue that is relevant to Hispanic education in the 1980s is the emergence of the self-help perspective. This perspective argues that in the past, students and parents have relied too much on the government to finance their college expenses. Consequently, the self-help perspective suggests shifting the responsibility of financing college education from the government to the parents and students. Under this banner of self-help, a drastic cut backs in financial aid programs, with students and parents required to provide 40% of the award, have been proposed.

The Plan of the Book

The aim of this book is to examine the above critical issues raised in the Hispanic education literature over the past two decades. In order to carry out research on these issues, it is imperature to have a data set which includes rich information on Hispanic education. As we shall describe in Chapter 2, the national High School and Beyond data set is appropriate for our purposes.

The second section of this book presents two chapters that bear on the cultural deprivation perspective. Focusing on high-achieving Hispanic language minority students from low socioeocnomic backgrounds, Chapter 3 questions whether it is necessary to strip Hispanic disadvantaged students of their language and cultural identity in order to promote academic achievement. Studying Hispanic parents, Chapter 4 examines the assertion that Hispanic parents have such a low educational aspiration level for their children that they are uninterested in and do not encourage their children's education.

The third section of this book presents two chapters that address issues relating to the structural perspective. Chapter 5 studies the characteristics of high density ethnic minority schools and examines whether they have delivered a poorer quality of educational services to their students than services delivered by the high density Anglo schools. Focusing on the teachers, Chapter 6 not only examines the assertion that Anglo teachers are biased toward Hispanic students, but also asks whether Hispanic teachers similarly treat Anglo students more favorably than Hispanic students.

The fourth section of this book examines three controversial issues that emerged in the early 1980s. Chapter 7 examines the impact of language of instruction on educational achievement. Chapter 8 studies whether language minority background or low socioeconomic status is more important in explaining Hispanic educational attainment. Chapter 9 examines the heated issue of the consequence on the college-going behavior of Hispanic students of cut backs in financial aid programs.

Needless to say, these issues are all controversial and have important policy implications. We provide a summary of the findings and a discussion of their policy implications in the conclusion of this book.

Chapter 2: The High School and Beyond Data Set

Funded by the National Center for Education Statistics (NCES) and conducted by the National Opinion Research Center (NORC), the High School and Beyond (HS&B) data set was the first wave of a national longitudinal study of the cohorts of high school students in the United States in 1980. The HS&B project design included a highly stratified national probability sample of over 11,000 high school with 36 seniors and 36 sophomores per school. In those schools with fewer than 36 seniors or sophomores, all eligible students were included in the sample. Cooperation from both schools and students was excellent. The overall response rate for schools was 91% and for students, 84%. Over 30,000 sophomores and 28,000 seniors enrolled in 1,015 public and private high schools across the nation participated in this study. The HS&B sample represents the nation's 10th and 12 grade populations, totaling about 3.8 million sophomores and 3 million seniors in more than 21,000 schools in spring, 1980 (Peng et al., 1981, p. ix; NORC, 1980a).

As a large-scale, longitudinal survey, the primary purpose of the HS&B project is to observe the educational and occupational plans and activities of young people as they pass through the American educational system and assume their adult roles (Peng et al., 1981, p. ix). Because of its excellent sample and questionnaire design, however, the HS&B project actually has collected much more data than required for its original purpose. E. B. Page (1981, pp. 22-23), a noted educational researcher, describes it as a "priceless national resource. . . . It is an extraordinarily far-sighted project, the richest resource for research and policy analysis we have had." Subsequently, many well-known researchers such as James Coleman (1981) have utilized the HS&B data set to generate publications that have important policy implications. Recently, many educational journals have devoted their entire issue to a policy report based on this data set (see, for example, Harvard Educational Review, 1981; Sociology of Education, 1982).

Despite its rich data, however, the HS&B data set still has not caught the full attention of researchers in Hispanic education. Except for the pioneer study by Nielsen and Fernandez (1981) on the achievement of Hispanic students, little work has been done from the perspective of Hispanic education utilizing this resource.

Because of the lack of familiarity of Hispanic education researchers with the HS&B data set, we shall first describe the nature of various data files contained in the HS&B data set. Then we shall point out the reason why this data set is particularly useful to Hispanic education researchers, noting for the reader the constraint imposed by this data set in carrying out Hispanic education research.

The Data Files and the Variables

In order to collect data from as many different types of resources as possible, the HS&B project distributed several sets of questionnaires to students, their parents, their teachers and the school administrators. The data collected were then stored in different computer files, as presented in Table 2.1. We shall briefly describe each of these files in the following sections.

The student file. The most important file in the HS&B data set, the student file contains responses from each student in the sample to a fairly extensive questionnaire on high school experiences, post-high school aspirations, and various achievement tests. Consequently, this file contains responses from all the 58,000 students in the HS&B sample and includes as many as 638 variables. A summary listing of the variables in this file is as follows:

- High School Experience Variables (curriculum placement, courses taken, grades and homework, vocational training, students' opinion of the school)
- Activities Outside of School Variables (working for pay, organized group activities, other leisure activities)
- Values and Attitudes Variables (life goals, factors in educational and occupational choices, national services)
- Plans of High School Seniors Variables (short-range plans, long-range plans)

- College Plans Variables (criteria for choosing a college, financial aid, expected field of study)
- Achievement Tests Variables (vocabulary, reading, mathematics, picture-number, mosaic comparison, visualization in three dimensions)

The language file. If a student reported some non-English language experience either during childhood or at the time of the survey, the student was requested to complete an additional set of questionnaires on language experience. About 11,000 out of a total of 58,000 students answered the language questionnaire; their responses were included in the language file. A summary listing of the 42 variables in this file is as follows:

- Language Status as a Child
- Present Home Language Variables
- Self-Assessed English and Other Language Proficiency (understanding, spoken, reading, writing)
- Present Language Usage (at home, at school, at work, at store)
- Experience with Bilingual Medium of Instruction in Grades 1-6, 7-9, 10-12
- Courses Taken (in English as a Second Language, reading/writing, math/science courses taught in other language, ancestry history)

Since this file will be of most interest to researchers who focus on language issues, a brief description of the sample characteristics of this file is presented in Table 2.2. This language file contains responses from 5,120 Hispanics, 3,763 Whites, 663 Asians, 203 American Indians, and 162 Blacks; about 1,100 students in this file did not answer the question on either ethnicity or mother tongue. Of all the ethnic groups in this language file, the highest percentage (67%) of nonEnglish mother tongue students were Asians, followed closely by Hispanics (62%), by American Indians (39%), and by Whites (20%); Blacks turned out to be lowest percentage (only 8%) of non-English mother tongue students.

The school file. The administrator in each selected school in the HS&B sample was requested to complete a questionnaire about the school; the responses are included in this school file. This file provides information about the social context in which the students receive their high school education. In all, 988 school administrators responded to questions containing some 237 variables. A summary list of the variables is as follows:

- School Facilities Variables (library volumes, indoor lounge, departmental office, student cafeteria)
- School Educational Characteristics (highest/lowest grade offered, total enrollment, length of school year, average daily attendance, number of graduates)
- School Ethnic Composition Variables (percentage of American Indian, Asian, Hispanic, Black, White students and faculty)
- School Social Environment Variables (student absenteeism, truancy, parents' lack of interest, teacher absenteeism, robbery, drugs, rape, vandalism)
- School Financial Situation Variables (per-student expenditure, percentage of funds from tuition, from fund-raising, from

religious subsidy, annual tuition, legal ownership)

- Teacher Characteristics (percentage female, percentage MA or Ph.D. degree, average pay, salary steps, teaching experience)
- Language Courses Taught (Spanish, German, French, Black Studies cultural courses, bilingual program, ESL courses, taught in mother tongue)

The teachers' comments file. Teachers in each selected school in the HS&B sample were asked to make comments on students identified in the sample. About 14,000 teachers from 611 schools responded on about 17,000 students. Since a teacher could make comments on one or more students, there were a total of about 143,000 teacher observations in this file. A partial list of the 30 variables in this file is as follows:

- Classes Taught by Teacher (English, art, history, etc.)
- Social Background of the Teacher (sex, ethnicity)
- Teacher's Knowledge of the Student (had student in class, know teacher, know parent)
- Evaluation of Student's Performance (student working up to potential, will probably go to college, seems to dislike school)
- Comments on Student's Social Traits (seems popular with others, emotional handicaps, self-discipline to hold a job)

The parent file. About 7,000 parents of the students in the HS&B sample were selected to complete another set of questionnaires containing their views on high school education. A list of the 307 variables is as follows:

- Parent's Social Background Variables (sex, ethnicity, education, occupation, industry, language status, social mobility)
- Parent's Communication with Students (talk to students in grades 6-7, 8-9, 10-11, 12)
- Parent's Expectation of Student's Educational and Occupational Achievements
- Parent's Ability to Finance College Education
- Parent's Actual Involvement in College Planning (talking to counselors, reading pamphlets, talking to other parents)

Finally, there are the test file, the friend file and the twin file which include a battery of cognitive tests, friendship linkages and information on twins, respectively. Since these three files may be of less interest to Hispanic education researchers, we shall not review them here. Interested readers can consult the codebooks or news releases for further details (NCES, 1982a, 1982c; NORC, 1980a, 1980b, 1980c).

The Relevance of the HS&B Data Set to Hispanic Education Research

The HS&B data set is particularly useful to Hispanic education researchers who are interested in studying bilingualism and bilingual education because of its excellent language file. According to Nielson and Fernandez (1981, p. 3), the language fie contains a language questionnaire that is even superior in quality to that in the 1976 Survey of Income and Education national data set.

First, the language file distinguishes childhood language status from the present language status, thus permitting researchers to study the rate of language shift in the present generation of high school students. Secondly, the language file distinguishes language usage at home from usage outside the home, and distinguishes oral proficiency (speaking, listening) from literacy (reading, writing). These finer distinctions enable researchers to study in more detail the actual patterns of language shift in these four important language domains. Third, the language file includes information on experience with a bilingual medium of instruction and on types of language courses taken in schools. This kind of language information allows researchers to classify types of bilingual education programs and to investigate their differential impact on language maintenance or loss.

In addition, when the language file is merged with other files in the HS&B data set, the newly merged file provides important data that can open up new frontiers in Hispanic education research. For instance, the merged language-student file will allow researchers to study the social background of Hispanic and language minority students, their experience in the U.S. high school, and their educational achievement in comparison with non-language-minority youth.

Another example is the merged language-school file, which will enable researchers to study language minority youth from a holistic perspective. The new language-school file will tell us, for example, which type of schools most language minority students attend, the ethnic composition of the students and the social environment in those schools, and the kinds of language courses offered.

In addition to the rich number of variables it contains, the HS&B data set is also valuable to Hispanic education in that it especially over-samplied Hispanics. Rarely has a national survey on high school education paid sufficient attention to the issues facing the Hispanic population. Thus, the HS&B data set may be the first national project that aims to include adequate Hispanic respondents in its sample.

Constraints on the Sample which Limit Generalizability

In spite of the richness of the data in the HS&B, there are also several constraints imposed by the HS&B data set on conducting bilingual education research. First is the high drop out rate: Chan (in press) points out that the drop out rate for limited-English or non-English speaking children is about three to four times the rate for English-speaking students. Similiarly, Waggoner (1981, p. 41) reveals that language minority students are less than half as likely as people with English language backgrounds to have completed high school or to have attended college. In addition, Nielsen and Fernandez (1981, p. 41) suggested that among Hispanic dropout, 60% leave school before grade 10. These studies point out the high probability that many Hispanic language minority students drop out of school before grade 10. Consequently, by surveying only the students in grades 10 and 12, the HS&B data set at best includes only those students who are talented or determined enough to survive through school beyond the 9th grade.

Following the logic of the above argument, the second sample constraint is the high student absenteeism in the HS&B data set. Even though a student was enrolled in grade 10 or above, this student might not be included in the HS&B data set because he or she was absent on the day the HS&B survey was conducted. Indeed, NORC (1980a, Table 1) reports that 8,278 students, or about 12% of the originally targeted 69,662 student sample, were absent on the day the HS&B survey was conducted. Since this represent quite a large number of students, it cannot be assumed that all the absentees were sick or were absent for family reasons. Most likely, many of these absentee students had lost the motication to stay in school or to attend class regularly. While NORC (1980a) does not report any ethnic composition or language background of these students, it is highly conceivable that many of these absentees were students from Hispanic language minority backgrounds who had lost interest in school or were on the verge of dropping out of school. If this assumption is correct, then the HS&B data set has discarded many absentee Hispanic language minority students from the sample.

Due to the above filtering processes of absenteeism and dropping out, the third sample constraint which necessarily follows is that there is the conspicusous absence of non-English speaking language minority students in the HS&B data set. A simple fact is that if a student really is non-English speaking, that student could not make it to grade 10 and show up on the HS&B survey day. Consequently, when a student was asked for his/her self-assessed English ability on the HS&B questionnaire, almost no one in the sample replied that he/she did not understand English. Indeed, one has to understand what is on the HS&B questionnaire (written in English) at least well enough to circle the answer "no English ability at all." Consequently, only 56 out of 58,000 students answered the questionnaire in Spanish. And of these 56 students, only 11 showed up in the language file, a fact that continues to puzzle us.

It is hard to assess what impacts these sample constraints might have on Hispanic education research. We can speculate that results from analyses of the HS&B data set might tend to overestimate language shift towards English monolingualism, and to underestimate the educational disadvantages facing Hispanic students because of the large number of students who were either absent from school on the day of the survey of who were drop outs. Because of these constraints, it is necessary to pay special attention to the above aspects in carrying out research related to these issues. For instance, the absence of non-English speaking Hispanic students in the HS&B data set has led So and Chan (1982) to construct a contextual language variable to measure the language background of the students instead of merely relying on the response to the question, "What language do you usually?".

In summary, it is clear that the rich information that the HS&B data contain outweigh its sample constraints. Therefore, while cautioning the readers about some of the sample constraints of the HS&B data set, we conclude that the HS&B data set will prove to be an extremely valuable resource for researchers in Hispanic education.

After this description of the data set for our research, let us now turn to the study relating to the cultural deprivation perspective. The next section will provide two chapters that have bearing on this perspective.

Chapter 3 focuses on the characteristics of the high-achieving disadvantaged students. It addresses the social processes that differentiate high-achieving Hispanic students from their fellow low-achieving Hispanic students. It presents three reference group hypotheses which emphasize the orientations toward the middle class, the Hispanic group, and the Anglo group respectively as explanations of high achievement. Its relevance for the cultural deprivation perspective is tht it raises the crucial question whether it is necessary to strip Hispanic students of their ethnic group identity and assimilating them to the Anglo society before they can do well in school.

Chapter 4 studies the cultural deprivation thesis from another angle. It takes isse with the perspective's low aspiration thesis which asserts that Hispanic parents are seldom interested in the educational attainment of their children. It examines the cultural fatalism explanation of such alleged low aspiration among Hispanic parents. This chapter is relevant to the cultural deprivation perspective on the ground that it challenges its tenet of making Hispanic parents and Hispanic culturre as the crucial factors of inhibiting the educational achievement of Hispanic students.

Table 2.1. A List of the Data Files in the HS&B Data Set

Name of the File	Number of Cases in the File	Number of Variables in the File
The Student File	58,000 students	638
The Language File	11,000 students with non-English language experience	42
The School File	988 schools	237
The Teachers' Comment File	143,000 teacher observations	30
The Parent File	7,000 parents	307
The Test File	53,000 students	248
The Twin File	500 twins	640
The Friend File	36,000 one-way friendship linkages	not specified

Table 2.2. Sample Characteristics of the Language File

	Ethnic Groups					
Mother Tongue	Hispanics	Whites	Asians	Am. Indians	Blacks	Total
English	38%	80%	34%	62%	92%	55%
Spanish	61%	2%	2%	3%	4%	32%
Other Language	1%	18%	65%	36%	4%	13%
Total %	100%	100%	101%	101%	100%	100%
(N)	(5,120)	(3,763)	(663)	(203)	(162)	(9,911)

References

Chan, K. S.
1983 Limited English speaking, handicapped, and poor: Triple threat in childhood. In M. C. Chang (Ed.), *Asian- and Pacific-American Perspectives in Bilingual Education: Comparative Research*. New York: Teachers College Press.

Coleman, J. S., Hoffer, T., & Kilgore, S.
1981 Public and Private Schools: Report to the National Center for Education Statistics. Chicago: National Opinion Research Center.

National Center for Education Statistics.
1982a High School and Beyond, Users Manual for Teacher Comment File. Washington, D.C.: National Center for Education Statistics, Longitudinal Studies Branch.

National Center for Education Statistics.
1982b Hispanic students in American high schools. *NCES Bulletin*, July 1982.

National Center for Education Statistics.
1982c Field file for High School and Beyond Data now available. *NCES Announcement*, September, 1982.

National Opinion Research Center.
1980a High School and Beyond: Information for Users. Base Year 1980. Report to the National Center for Educational Statistics under contract #300-78-0208. Chicago: National Opinion Research Center.

National Opinion Research Center.
1980b High School and Beyond: Language File Codebook. Chicago: National Opinion Research Center.

National Opinion Research Center.
1981 High School and Beyond: School Questionnaire Codebook, Version 1. Chicago: National Opinion Research Center.

Nielsen, F., & Fernandez, R. M.
1981 Achievement and Hispanic students in American high schools. Report to the National Center for Education Statistics under contract #300-78-0208. Chicago: National Opinion Research Center.

Page, E. B.
1981 The media, technical analysis, and the data feast. Educational Research, 10: 21-23.

Peng, S. S., Fetters, W. B., & Kilstad, A. J.
1981 High School and Beyond: A national longitudinal study for the 1980s. A capsule description of high school students. Washington, D.C.: National Center for Education Statistics.

Harvard Educational Review
1981 Report analysis: Public and private schools. Harvard Educational Review 51: 481-454.

So, A., Chan, K.
1982 What matters? The relative impact of language background and socioeconomic status on reading achievements. NCBR Technical Note No. 8. Los Alamitos, CA: National Center for Bilingual Research.

Sociology of Education
1982 Special issue on public and private schools. Sociology of Education 55: 63-182.

Waggoner, D.
1981 Educational attainment of language minorities in the United States. NABE Journal 6: 41-53.

Section II. The Cultural Deprivation Perspective

Chapter 3. The High-Achieving Disadvantaged Students: A Study of the Social Processes Contributing to Academic Achievement in Low Socioeconomic Hispanic Language Minority Youths

Students from low status, ethnic and language minority backgrounds often face numerous obstacles in their educational attainment. Lipset and Bendix (1960:199) point out the accumulation of disadvantages in which "the socially underprivileged adolescent has seen less, read less, heard about less, has experienced less variety in his environment in general, and is simply aware of fewer opportunities than the socially privileged young person." In this respect, Hoggart (1957, chapter 10) also describes the non-conduciveness of the working class home towards educational achievement:

> "Since everything centers upon the living-room, there is unlikely to be a room of his own; the bedrooms are cold and inhospitable, ... There is a corner of the living-room table. On the other side Mother is ironing, the wireless is on, someone is singing a snatch of song or Father says intermitently whatever comes into his head. The boy has to cut himeslf off mentally, so as to do his homework, as well as he can."

In addition, the inner-city schools, where most low status minority youths receive their education, programmed students for failure (Rist, 1973). Moore's (1978:28) study of Hispanic youth in Los Angeles suggests that young school dropouts, which constitute a proportion of the Hispanic youth population, "has been thoroughly socialized in the schools to expect very little: he learns to cope with, and finally abandons all hope of, pleasing the teacher, and he establishes patterns of truancy, tardiness and evasion of school rules." Facing these kinds of negative influences in the social environment, it is not surprising that low status, ethnic and language minority youths have low educational attainment compared to the children of the white middle class (Coleman et. al., 1966; Steinberg, Blinde, and Chan, 1982; So and Chan, 1982; Carter and Seguna, 1978).

The purpose of this chapter, however, is not to document the educational failure of low status, ethnic and language minority students. Such documentation can be found repeatedly in the literature and the phenomenon has been firmly established. Instead, our focus is on variation in educational attainment within the low status Hispanic youths from Spanish-speaking background. Since not every disadvantaged Hispanic youth fails in school, it is interesting to study why a small portion of them are able to have high educational achievement in spite of an unfavorable social background. What are the social orientations of these high-achieving disadvantaged students that differentiate them from their fellow low-achieving students?

Middle Class Reference Group Hypothesis

Sociologists have long been interested in studying the high-achieving disadvantaged student phenomenon (Krauss, 1964; Ellis and Lane, 1963; Kahl, 1961; Cohen, 1958; Belin, 1956). In general, they use a middle class reference group hypothesis to explain the upward mobility thrust of low status youths. Sociologists argue that in order for low status youth to overcome structural barriers toward their educational and occupational achievement, they must aspire to enter the middle class, adopt the middle class life style, and use the middle class value standard as a reference to judge their own behavior. Merton and Rossi (1966) have used the concept "anticipatory socialization" to describe the process by which a low status youth takes the middle class as a reference group to which he aspires, and begins to socialize himself to what he perceives to be its norm before he is ever exposed to its influence (see also Hyman and Singer, 1968; Lipset and Bendix, 1960).

Although each sociologist has a preference for some indicators over others, the middle class reference group hypothesis generally has the following three components: (1) Low status parents use the middle class as a reference group and want their children to attain membership in the middle class. Kahl's (1964:363) ethnographic study of "common man" boys suggests that "parents who believed in the value of 'getting ahead' started to apply pressure from the beginning of the school career. They encouraged high marks, th?y paid attention to what was happening to school, they stressed that good performance was necessary for occupational success..." (2) Los status youths have a college-oriented peer group. Ellis and Lane (1963:756) explain that college-oriented peers "provide a middle-class learning environment where the mobile individual is exposed to the norms and behavioral traits of successful mobility requires." Having a college-oriented peer group is especially important for low status youth because in the barrio neighborhoods the majority of youth are not oriented toward college. If a youth aims higher than his friends, he has to accept derision or isolation from those who think it is stupid and sissified to pursue a college course and carry books home at night. In this respect, college-oriented boys support each other as a peer group. (see Whyte, 1943). (3) The youth actually internalizes some of the middle class values such as postponement of current gratifications for the achievement of long range goals (Beilin, 1956) and development of high educational and occupational aspirations (Kahl, 1964). Sociologists argue that these middle class goals serve as the psychodynamic driving force to motivate low status youths to transcend their membership group.

In addition, a general theme that runs through the middle class reference group hypothesis is that the low status youth must not conformed to but must defect and be alienated from their present membership group in order to be upwardly mobile. Although Merton and Rossi (1966:511) concede that the consequences of disassociation may be painful for the aspirant, they suggest that a middle class orientation "may serve the twin functions of aiding his rise into that group and of easing his adjustment after he has become part of it."

In summary, sociologists have proposed a middle class reference group hypothesis to explain the upward mobility of low status youth. Most of the sociological studies cited thus far were conducted before the mid-sixties and thus missed the exciting ethnic movements in the late sixties and the early seventies. Consequently, these studies have not attended to the ethnic factor in educational achievement. It is therefore not known whether the middle class reference group hypothesis can be applied to study ethnic and language minorities or if a whole new perspective is required. It is for this reason that we now turn to the ethnic literature for its explanation of high-ahievement of Hispanic disadvantaged students.

Anglo Reference Group Hypothesis

Although the ethnic literature seldom uses with the terminology of reference group theory, their findings can be reformulated into two competing ethnic reference group hypotheses. The first, the Anglo reference group hypothesis, holds that the roots of educational failure for Hispanic disadvantaged students lie in their adherence to their cultural heritage, as exemplified by their high rate of Spanish language maintenace (Evans and Anderson, 1973; Heller, 1969; Spilka and Gill, 1965; Schwartz, 1969; Wendling and Elliot, 1968). Hispanic disadvantaged students are usually reared in a Spanish-speaking home and know little English before starting school. Consequently, they experience immense educational problems during their first few years of schooling when they are taught in an all-English environment. This language difference problem is often compounded by Hispanic cultural features of poverty, student self-concepts of low ability and fatalistim, parental beliefs that formal education is useless for their children and will not get them anywhere. Following the logic of this argument, the Anglo reference group hypothesis suggests that in order for a Hispanic disadvantaged student to achieve academically, he must discard his Hispanic identity and Spanish language background so as to assimilate Anglo values as reference norms to guide his behavior. Thus Schwartz (1969) concludes that "as opportunities are presented to Mexican-American youth for some acculturation to Anglo values, so are opportunities presented for greater educational achievement."

Hispanic Reference Group Hypothesis

Beginning in the late sixties, the Anglo reference group hypothesis was increasingly challenged by the Hispanic reference group hypothesis (Ramirez, 1971; Hernandez, 1973; Leyva, 1975; Kuvlesky and Patella, 1971; Cordova, 1969; Henderson and Merritt, 31968; Long and Padilla, 1971; Macias, 1974). This hypothesis argues that orientation toward the Anglo reference group will lead to decreasing educational achievement instead of higher achievement. Such decrease is due to turmoil and tension caused by forcing a child to choose is asked between the Anglo and Hispanic reference groups, potentially denying himself, his family, and his community. Rodriguez's (1983:28-30) biography illustrates this point:

> "I grew up victim to a disabling confusion. As I grew fluent in English, I no longer could speak Spanish with confidence...for many years I could not pronounce it. A powerful guilt blocked my spoken words; ... I would try to speak, but everything I said seemed to me horribly anglicized. My mouth would not form the words right... Pocho then they called me (as a noun, naming the Mexican-American who, in becoming an American, forgets his native society)...But once I spoke English with ease, I came to feel guilty. I felt that I had shattered the intimate bond that had once held the family close. This original sin against my family told whenever anyone addressed me in Spanish and I responded, confounded."

Thus the Hispanic reference group hypothesis argues that most of the unsuccessful students come from homes in which only English was spoken, indicating a high degree of acculturation. Accordingly, this hypothesis proposes that a high achieving Hispanic student is one who takes pride in his Hispanic culture and identity. Consequently, there is no conflict among the student's sense of self worth, his allegiance to family and community, and his association with school and the Anglo culture. Thus in Long and Padilla's conclusion (1971): "The present finding of a very high rate of bilingualism in the sample of successful Spanish-American students suggests that these students may have been better able to interact readily with members of both their own culture and that of the dominant American culture."

We have presented three hypotheses which suggest that middle class, Anglo, Hispanic reference groups are factors that lead to high achievement in disadvantaged students. While these hypotheses have advanced our knowledge of the process of educational attainment among disadvantaged students, many issues require clarification before we can truly understand high achievement in disadvantaged students.

The three hypotheses have not really been tested with social science data. The hypotheses were derived mostly from studies based on small samples or on ethnographic field work and it is questionable whether the conclusions reached from these small-scale studies can be applied to the Hispanic population on the national level. Moreover, these studies depend primarily on crosstabulation and simple analysis of variance to analyze the data, and their methodologies have not kept pace with recent advances in multi-variate analyses, such as structural equation models with latent theoretical variables. Consequently, the fundamental issue of whether the Anglo reference group or the Hispanic reference group leads to high achievement in disadvantaged students still has not been settled.

In addition, the literature is one-sided in its emphasis on a single reference group as the determinant of educational success. Thus the sociological literature highlights only the middle class reference group while the ethnic literature stresses only the Anglo (or Hispanic) reference group. But since our targeted population is not only Hispanic but also from a low status background, can its achievement be influenced by aspiration to more than one reference group? In other words, in order to have high achievement, is it necessary to orient toward both an Anglo reference group and a middle class reference group? Or is it sufficient to discard present low status membership without getting rid of ethnic identity (i.e. to have a middle class reference group and a Hispanic reference group)?

These questions suggest a multiple reference group hypothesis to study high educational achievement in low status Hispanic students. It is important here to investigate how one reference group is related to another, and in what ways a reference group affects educational achievement after the effect of another reference group has been controlled. This line of research will not only enhance our development of reference group theory but also has important policy implications for what programs to implement in order to raise the educational achievement levels of Hispanic disadvantaged students. What follows is a discussion of a Lisrel model to investigate this multiple reference group hypothesis.

The Lisrel Model

The Lisrel V model, which has both measurement and structural equation components, represents an advance in quantitative methodology. The measurement component makes it possible to operationalize latent theoretical concepts by the shared variance of one or several observable variables (indicators or measures). The structural equation enables researchers to spell out their hypotheses explicitly in a systematic way. In this respect, the Lisrel model acts like a combination of confirmatory factor analysis and structural equation models (Bentler, 1980; Bielby and Hauser, 1977; Maruyama and McGarvey, 1980; Joreskog and Sorbum, 1980).

Our Lisrel model is presented in Figure 3.1. It has three theoretical latent variables: Educational achievement, the middle class reference group, and the Hispanic reference group are noted in circles on the model. Each latent variable is represented by several observed measures, noted in rectangles on the model. Educational achievement is represented by grade point average in school and math and reading achievement tests. Mother educational aspiration, college-going friend, willingness to defer marriage, educational aspiration, and occupational aspiration are measures of the middle class reference group because they measure either the respondent's identification, or his mother's identification, with the middle class. Selection of Spanish proficiency and Spanish usage as the observed measures of the Hispanic reference group was on the grounds that when a person identifies with Hispanic ethnicity he uses Spanish frequently and well (see Kuvlesky and Patella, 1971; Moran, 1983; Skutnabb-Kangas, 1979). While Spanish reading and writing skills are primarily dependent upon courses the student has taken in elementary and high school, the fact that a student took Spanish courses may be an indication of ethnic identification. In addition, we have allowed the error terms of Spanish proficiency and Spanish usage variables to correlate with one another because writing skills are usually associated with reading skills, and speaking Spanish to one's mother will usually result in the mother speaking Spanish back to the student. We have excluded understanding Spanish as one of the Hispanic reference group indicators because a person may understand Spanish fairly well but still may not be able to speak it or may prefer not to use it.

The structural equation model relating these three latent theoretical variables will then allow us to test the various reference group hypotheses:

> (1) The middle class reference group hypothesis predicts a positive relationship between the middle class reference group and educational achievement.
>
> (2) The Anglo reference group hypothesis predicts a negative relationship between the Hispanic reference group and achievement.
>
> (3) The Hispanic reference group hypothesis predicts a positive relationship between the Hispanic reference group and achievement.
>
> (4) Educational achievement is predicted by both

> middle class and Hispanic reference groups in the multiple reference group hypothesis. An Anglo middle class reference group hypothesis would be supported if there is a negative relationship between the Hispanic reference group and achievement and a positive relationship between the middle class reference group and achievement.
>
> (5) A Hispanic middle class hypothesis would be supported if positive relationships are found for both the Hispanic and middle class reference groups predictors in the structural equation.

The size of the coefficients in the equation will show which reference group is more important than the others. Moreover, since it is not clear if the middle class reference group causally influences the Hispanic reference group (or vice versa), we do not try to determine why they are related. Instead, the model allows them to covary, as shown by the double-headed curved arrow in Figure 3.1.

To test the above Lisrel model, it requires a national data set which includes good language variables and a large number of Hispanic disadvantaged students. In this respect, the student file in the longitudinal High School and Beyond (HS&B) data base is quite appropriate for this purpose.

The High School and Beyond Data Base and Sample Characteristics

The HS&B survey was a national longitudinal study of the cohorts of high school seniors and sophomores in the United States in 1980. Approximately 58,000 students at 1,015 schools and school administrators from 988 schools completed questionnaires. The data set represents a population of 3.8 million sophomores and 3 million seniors in more than 21,000 schools in spring 1980. The HS&B survey included data collection at a number of levels. Students were asked to complete questionnaires detailing their schooling experiences and future plans. They were also given achievement tests (Peng et. al. 1981; NORC, 1980a; So, 1983).

What makes the HS&B data base relevant to the present analysis is its over-sampling of the Hispanic student population. Rarely has a national survey of high school education paid sufficient attention to issues facing the Hispanic disadvantaged students. Thus, the HS&B data set may be the first national project that aims to include adequate Hispanic respondents in its sample. However, in order to avoid bias in over-sampling Hispanics, the HS&B study assigned weights to each case in the sample. Weights were calculated to reflect differential probabilities of sample selection and to adjust for nonresponse. In this respect, the HS&B data set remains a nationally representative study that supplements the general information usually collected (e.g. family background, college aspiration, achievement tests) with information that is especially of interest to researchers of Hispanic education. For instance, the HS&B data set has paid special attention to collecting information on language. If a student indicated a non-English response to any or all of five language questions, that student was asked to complete another questionnaire concerning childhood language experiences, home language environment, language proficiency in understanding, speaking, reading, and writing, etc. Their responses formed the language file of the HS&B data base (NORC, 1980b; Nielsen and Fernandez, 1981). These detailed language variables have faciliated our identification of the Hispanic reference group latent variable.

In addition, the HS&B data set has provided a standard socioeconomic status (SES) variable. The SES variable is a composite scale constructed from father's occupation; father's education; mother's education; family income; and a set of items that ask whether the student's family receives a daily newschapter, owns an encyclopedia or other reference books, has a typewriter, has an electric dishwasher, owns two or more cars or trucks, has more than 50 books, or owns a pocket calculator, and whether the student has his or her own room. Our sample includes those students who are in the low quarter of this SES scale. We also selected only those students who indicated Latin American countries of origin (decent) and Spanish as their first language spoken as a child. Including only low SES, Spanish mother tongue Hispanic students, we have a sample size of 1,990 out of 5,120 Hispanics in the language file.

As expected, this sample of Hispanic disadvantaged students generally demonstrates low educational achievement. On standardized tests with a mean of 50, only 25% of the students earned a math score of 50 and above and only 20% earned a reading score equal to or higher than 50. Also as expected, their parents show low educational and occupational attainments. Only one-tenth of the fathers graduated from high school and only another 3% had any post-secondary education. The fathers are mostly laborers, with only 3% in the professional and clerical occupations. The same applies to the mothers, however a higher percentage (5%) of mothers work in clerical and sales categories.

For this group of disadvantaged students, then, we can address the important issue of why a small percentage are able to escape the negative impact of their social background and attain relatively high educational achievement levels? In other words, what social processes might differentiate a high-achieving disadvantaged Hispanic student from his low-achieving fellows? We shall answer this question by examining our Lisrel model with the HS&B data.

The Findings

The first phase of analysis requires determining whether the proposed Lisrel model fits the data. The Lisrel program provids a chi-square statistic, a goodness of fit index (GFI), and a root mean square residual (RMR), which are useful for each determinations. The chi-square is the most commonly used measure, but it is highly sensitive to sample size. Many researchers have warned that for large samples, chi-square measures should be used primarily as a guide rather than as a rule (Maruyama and McGarvey, 1980; Joreskog, 1973; Joreskog and Sorbom, 1980). We ran the Lisrel program two times on the weighted correlation matrix: One run used the weighted N (54,436), and the other used the unweighted sample N (1,134). Both runs gave exactly the same Lisrel estimates, but the weighted program yielded a much larger chi-square (16,600) than the unweighted program (346). This huge discrepancy between the weighted and the unweighted measures raises doubts regarding the validity of the chi-square test statistics; however, both the weighted and the unweighted runs gave the same goodness of fit index (0.930) and root mean square residual (0.058). Since the GFI is over 0.9 and the RMR is under 0.1, these two measures suggest that the proposed model fits the data well despite the large chi-square values.

Given the appropriateness of the model for the data, the next of analysis examines the measurement component of the Lisrel model to see whether the latent theoretical constructs are well-represented by the observed variables. Table 3.1 presents the Lisrel estimates that are derived from the weighted correlation matrix and the unweighted N. As stated above, both the weighted N and the unweighted N gave exactly the same estimates? but, as expected, the estimates from the unweighted N have larger standard errors than those derived from the weighted N. We choose to present the larger standard errors that were derived from the unweighted N for safety's sake. It should be noted that we set the lambda coefficients for GPA, mother's educational aspiration, and speaking Spanish to mother as reference indicators in order to provide a metric, or scale, for the three latent theoretical variables. Consequently, the above three lambda coefficients have a zero standard error.

In the measurement model, the total coefficient of determination of x (or y) is a generalized measure of reliability for all the x (or y) variables as a whole. This reliability measure shows how well all the x (or y) variables jointly serve as measurement instruments for all the latent construct jointly. In our analysis, the total coefficient of determination of Y variables is 0.692 and that of X variables is 0.825, indicating that our latent constructs have fairly good reliability. In addition, all the lambda coefficients in Table 3.1 are over twice their standard errors and are thus statistically significant.

The lambda in the Lisrel program is similiar to the loading in factor analysis, with the size of the lambda indicating the contribution of the observed variable to the latent construct. For the educational achievement construct, the reading test variable is the most reliable indicator, but the loadings of the other two indicators (GPA, math test) are not that different from the reading test value. For the two reference group constructs, however, there is quite a difference in the loadings of the indicators. For the measure of middle class reference group, educational aspiration is the most reliable indicator, followed by mother educational aspiration and by respondent's occupational aspiration. It seems that having a college-going friend and postponement of marriage do not contribute much to the middle class reference group construct once the effects of aspiration variables have been taken into account. With respect to the Hispanic reference group construct, speaking Spanish to mother is the most reliable indicator, followed by mother speaking Spanish to the student and by spoken Spanish proficiency. Parental Spanish communication and reading and writing Spanish do not contribute much to the latent Hispanic reference group construct; but we included these three variables in the measurement model because their loadings are statistically significant.

The parameters in the structural equation model model will allow us to test the various reference group hypotheses proposed earlier. The gamma coefficient is similiar to the regression coefficient in the sense that it shows the unique effect of an independent variable on a dependent variable after the effects of other independent variables have been controlled. Looking at the gamma coefficient, the middle class reference group hypothesis predicts only gamma 1 as significant, while the Hispanic reference group hypothesis predicts only gamma 2 assignificant. As shown in Table 3.1, both gamma 1 and 2 are significant. This finding means that both middle class and Hispanic reference groups have independent impacts on educational achievement. The data therefore points to a multiple reference group hypothesis explanation.

The positive signs on the gamma coefficients show that both the middle class reference group and the Hispanic reference group have a positive impact on educational achievement. This findings supports the Hispanic middle class reference group hypothesis. When we further ask which reference group exerts a stronger unique impact on achievement, the size of the gammas shows that the middle class reference group (.338) has over four times more impact that of the Hispanic reference group (.075). However, the phi coefficient is also positive (.200), suggesting that orientation toward the Hispanic reference group is also positively related to orientation toward the middle class reference group. Our model therefore shows that there are two ways that the Hispanic reference group can influence educational attainment: a direct impact, shown by gamma 2 (.075); and an indirect impact through orientation toward the middle class reference group (.200 x .338 = .068).

Concluson and Discussion

The leading question of this chapter addresses the social processes that differentiate high-achieving Hispanic disadvantaged students from their fellow low achieving students. We go beyond the literature's single reference group explanation by formulating a multiple reference group explanation. Using a subsample of the national HS&B data set which includes only low status Hispanic language minority students, a Lisrel model analysis shows that orientation to the Hispanic reference group is positively related to orientation to the middle class reference group, and both reference group orientations have a positive impact on educational achievement. These findings support a Hispanic middle class hypothesis: A high-achieving disadvantaged student is one who identifies with his own ethnic group while at the same time aspires and orients to middle class values.

Our findings challenges the reference group theory that nonconformity to one's membership group facilitates entrance into a non-membership group. Reference group theory argues for alienation from the low status group in order to be included as a member of the middle class in the future. The theory may hold for Anglo disadvantaged students, but it needs to be further developed to account for the social mobility of Hispanic disadvantaged students. Our findings suggest that a Hispanic disadvantaged student needs to retain Hispanic group identity and at the same time aspire to membership in a middle class group in order to achieve at high levels. It seems that high achieving Hispanic students may identify with different reference groups for different purposes: They may identify with the Hispanic ethnic group for sentimental reasons, such as greater comfort in speaking Spanish with parents; however, they may orient to middle class norms for instrumental reasons, such as educational achievement and future upward mobility. Once this strategic identification with multiple reference groups is developed, it may not be necessary for Hispanic disadvantaged students to disassociate both low status and ethnic group membership. Thus the high-achieving Hispanic student may avoid the painful process of alienation from his own ethnic group, but still reap the benefits of aspiring to membership in the middle class group.

These findings are at odds with the cultural deprivation perspective which argues that a Hispanic disadvantaged student has to be stripped of his cultural identity in order to succeed in school. For educational planners, the implication of our research findings is to strengthen two types of programs: ethnic programs that are sensitive to cultural identification and programs that will increase orientation toward the middle class reference group.

The next chapter will too have bearing on the cultural deprivation perspective. Focusing on Hispanic parents, it examines the cultural deprivation perspective's assertion that Hispanic parents are seldom interested in the educational attainment of their children.

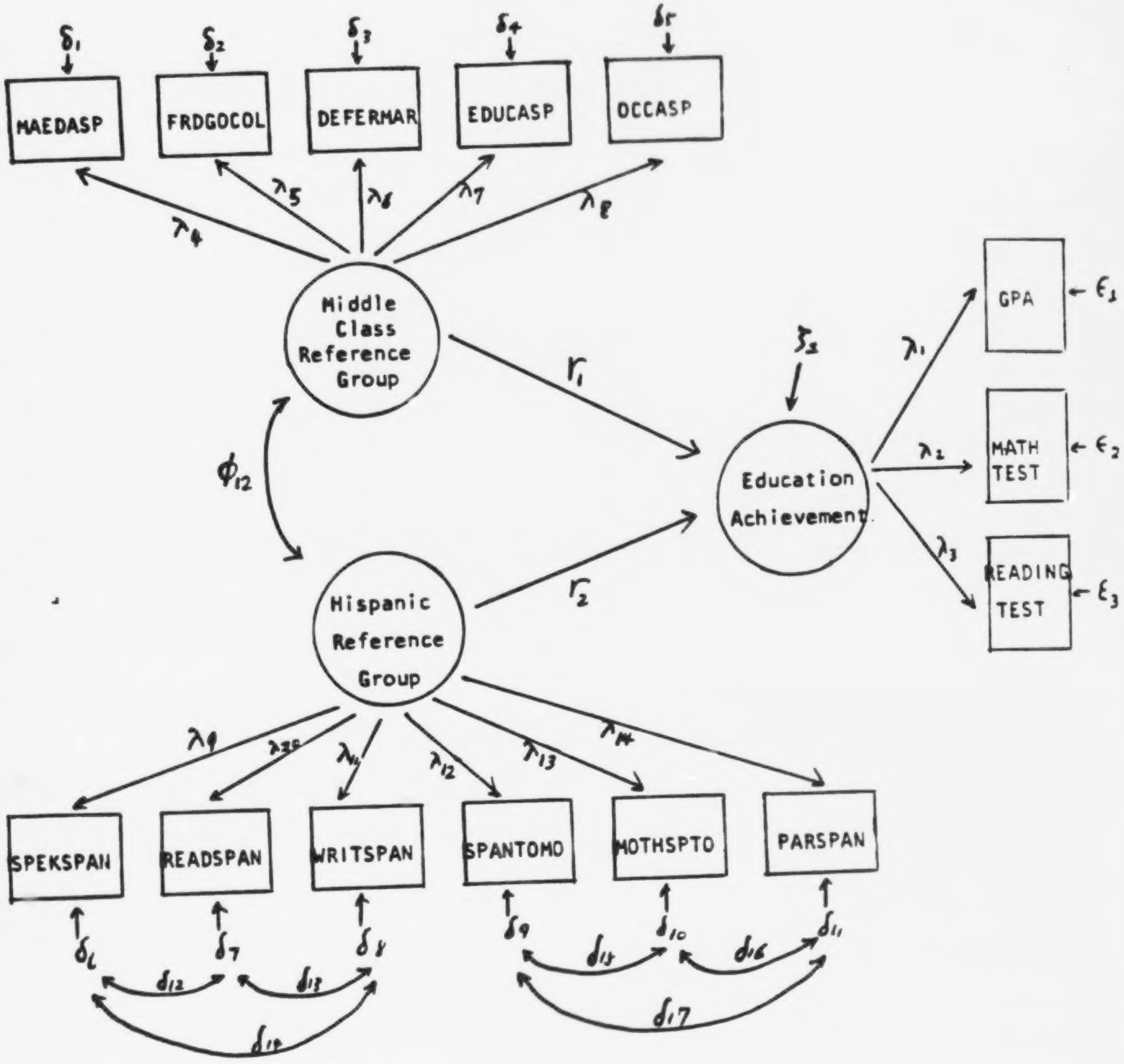


Figure 3.1. A Lisrel model of educational attainment for disadvantaged Hispanic students.*

---

* The lengend of the variables in this model are described in Appendix 1.

BEST COPY AVAILABLE

Table 3.1. Values for Coefficients in Figure 3.1*

Coefficients	Maximum Likelihood Estimate	Standard Error of LM Estimates	Residual	Variance of Residence	Standard Error of Residual
$\lambda 1$	1.000	.000	ε_1	.656	.035
$\lambda 2$	1.035	.075	ε_2	.631	.035
$\lambda 3$	1.247	.088	ε_3	.465	.037
$\lambda 4$	.544	.000	δ_1	.740	.036
$\lambda 5$	.375	.035	δ_2	.862	.039
$\lambda 6$	.350	.035	δ_3	.880	.040
$\lambda 7$	.640	.035	δ_4	.598	.039
$\lambda 8$	.524	.035	δ_5	.731	.038
$\lambda 9$	.493	.000	δ_6	.739	.040
$\lambda 10$	.313	.034	δ_7	.896	.041
$\lambda 11$	.201	.035	δ_8	.956	.041
$\lambda 12$	.730	.058	δ_9	.463	.073
$\lambda 13$	.523	.056	δ_{10}	.723	.058
$\lambda 14$	.338	.055	δ_{11}	.884	.049
			δ_{12}	.372	.033
			δ_{13}	.752	.038
			δ_{14}	.392	.032
			δ_{15}	.311	.059
			δ_{16}	.531	.047
			δ_{17}	.203	.049

Total coefficient of determination for Y variable = .692
Total coefficient of determination for X variable = .852

The Structural Equation Model

ϕ_{12}	.200	.047	ξ_1	.217	.027
γ_1	.338	.030			
γ_2	.075	.027			

Total coefficient of determination for structural equation = 0.374

Overall Fitness of the Lisrel model

df = 70 χ^2 = 346
goodness of fit = 0.930
root mean square residual = 0.058

---

*In the Lisrel model, we specify the unweighted sample size (1134) as N and use the weighted correlation metrix as input. See test for explanation. The correlation metrix is presented in Appendix 1.

BEST COPY AVAILABLE

Table 3.2. Correlation matrix for the Lisrel model

	GPA	MATHTEST	READTEST	MAEDASP	FRGOCOL	DEFERMAR	EDUCASP	OCCASP	SPEKSPAN	READSPAN	WRITSPAN	SPANTOMO	MOTHSPTO	PARSPAN
GPA	1.000	.333	.411	.166	.217	.103	.298	.243	.128	.193	.130	.136	.123	.094
MATHTEST	.333	1.000	.474	.194	.149	.131	.154	.158	.023	.096	.004	.091	.138	.125
READTEST	.411	.474	1.000	.186	.125	.178	.232	.292	.029	.134	.045	.110	.114	.120
MAEDASP	.166	.194	.186	1.00	.171	.096	.352	.257	.157	.193	.172	.060	.026	-.011
FRGOCOL	.217	.149	.125	.171	1.000	.091	.252	.202	.071	.094	.121	.005	-.009	-.038
DEFERMAR	.103	.131	.178	.096	.091	1.000	.268	.212	-.020	-.027	-.045	-.002	-.070	-.069
EDUCASP	.298	.154	.232	.352	.252	.268	1.000	.287	.113	.150	.181	.085	.053	.034
OCCASP	.243	.158	.292	.257	.202	.212	.287	1.000	.087	.213	.183	.085	.042	.054
SPEKSPAN	.128	.023	.029	.157	.071	-.020	.113	.087	1.000	.537	.499	.386	.234	.130
READSPAN	.193	.096	.134	.193	.094	-.027	.150	.213	.537	1.000	.820	.219	.153	.101
WRITSPAN	.130	.004	.045	.172	.121	-.045	.181	.163	.499	.820	1.000	.147	.038	.005
SPANTOMO	.136	.091	.110	.060	.005	-.002	.085	.085	.386	.219	.147	1.000	.697	.452
MOTHSPTO	.123	.138	.114	.026	-.009	-.070	.053	.042	.234	.153	.038	.697	1.000	.710
PARSPAN	.094	.125	.120	-.011	-.038	-.069	.034	.054	.130	.101	.005	.452	.710	1.000

LEGEND: GPA = Grade Point Average; MATHTEST; Math Test Score; READTEST: Reading Test Score; MAEDASP: Mother Education Aspiration; FRGOCOL: Friend go to college; DEFERMAR: defer marriage; EDUCASP: Educational Aspiration; OCCASP: Occupation Aspiration; SPEKSPAN: speak Spanish Proficiency; READSPAN: Read Spanish proficiency; WRITSPAN: Write Spanish Proficiency SPANTOMO: Speak Spanish to Mother; MOTHSPTO: Mother Speak Spanish to you; PARSPAN: parent speak Spanish to each other.

BEST COPY AVAILABLE

References

Beilin, Harry
1956 "The pattern of postponability and its relation to social class mobility." The Journal of Social Psychology 44:33-48.

Bentler, Peter M.
1980 "Multivariate analysis with latent variables: Causal modeling." Annual Review of Psychology 31:419-56.

Bielby, William T. and Robert M. Hauser
1977 "Structural equation models." Annual Review of Sociology 3:137-61.

Carter, Thomas P. and Roberto D. Segura
1979 Mexican Americans in School: A Decade of Change. New York: College Entrance Examination Board.

Cohen, Elizabeth G.
1958 Parental factors in educational mobility. Ph.D. dissertation, Harvard University.

Coleman, James S. et. al.
1966 Equality of Educational Opportunity. Washington D. C: Office of Education, U.S. Dept. of HEW.

Cordova, I.R.
1969 The Relationship of Acculturation, Achievement, and Alienation among Spanish-American Sixth Grade Students. ERIC: CRESS, Feb.

Ellis, Robert A. and W. Clayton Lane
1963 "Structural Supports for Upward Mobility." American Sociological Review 28:743-756.

Evans, Francis B. and James G. Anderson
1973 "The psychocultural origins of achievement and achievement motivation: The Mexican-American family." Sociology of Education 46: 396-416.

Heller, Celia
1969 "Class as an explanation of ethnic differences in upward mobility." Pp. 396-403 in Celia Heller (ed.) Structural Social Inequality. London: Macmillan Co.

Henderson. R.W. and Merritt C.C
1969 "Environmental backgrounds of Mexican-American children with different potentials for school success." The Journal of Social

Psychology 75:101-106.

Hernandez, Norman G
1973 "Variables affecting achievement of middle school Mexican-Aemrican students." Review of Educational Research 43:1-39.

Hoggart, Richard
1957 The Case of Literacy. London: Chatto and Windus.

Hyman, Herbert H. and Eleanor Singer
1968 Readings in Reference Group Theory and Research. Toronto: Collier-Macmillan Co.

Joreskog, Karl G.
1973 "A general method for estimating a linear structural equation model." Pp. 85-112 in A.S. Goldberger and O.D. Duncan (ed.) Structural Equation Models in the Social Sciences. New York Seminar Press.

Joreskog, Karl G. and Dag Sorbom
1981 Lisrel V: Analysis of Linear Structural Relationships by the Method of Maximum Likelihood. Sweden: Dept. of Statistics, University of Uppsula.

Kahl, Joseph A.
1961 "Common man boys." Pp. 348-366 in A. H. Halsey, J. Floud and C.A. Anderson (ed.) Education, Economy, and Society. New York: The Free Press of Glencoe.

Krauss, Irving
1964 "Sources of educational aspirations among working class youth." American Sociological Review 29: 867-879.

Kuvlesky, William P. and Victoria M. Patella
1971 "Degree of ethnicity and aspiration for upward social mobility among Mexican American youth." Journal of Vocational Behavior 1: 231-244.

Leyva, Rudolfo
1975 "Educational aspirations and expectations of Chicanos, non-Chicanos and Anglo-Americans." California Journal of Educational Research 26:27-39.

Lipset, Seymour M. and Reinhard Bendix
1960 Social Mobility in Industrial Society. Berkeley and Los Angeles: University of California Press.

Long, K.K. and A.M. Padilla

1971 "Evidence for bilingual antecedents of academic success in the gorups of Spanish-American college students." Journal of Cross-Cultural Psychology

Maruyama, Geoffrey and Bill McGarvey
1980 "Evaluating causal models: An application of Maximum-Likelihood analysis of structural equations." Psychological Bulletin 87:502-512.

Macias, Reynaldo F.
1974 "Schooling of Chicanos in a bilingual, culturally relevant context." Pp.109-134 in Southwest Network (ed.) Parameters in Institutional Change: Chicano Experiences in Education. Hayward, Calif.: Southwest Network.

Merton, Robert K. and Alice K. Rossi
1966 "Reference group theory and social mobility." Pp.510-515 in Reinhard Bendix and Seymour M. Lipset (ed.) Class, Status, and Power. New York: The Free Press.

Moran, Julio
1983 "Chicanos jolted by Ivy League." Los Angeles Times Wed. June 22.

Moore, Joan W.
1978 Homeboys. Philadelphia: Temple University Press.

National Opinion Research Center
1980a High School and Beyond: Information for Users. Base Year 1980. Report to the National Center for Educational Statistics under contract #300-78-0208. Chicago: National Opinion Research Center.

1980b High School and Beyond: Language File Codebook. Chicago: National Opinion Research Center.

1981 High School and Beyond: School Questionaire Codebook. Version I. Chicago: National Opinion Research Center.

Nielsen, F. and R.M. Fernandez
1981 Achievement and Hispanic Students in American High Schools. Report to the National Center for Education Statistics under contract #300-78-0208. Chicago: National Opinion Research Center.

Ramirez III, Manuel
1971 "The relationship of acculturation to educational achievement and psychological adjustment in Chicano children and adolescents: A review of literature." El Grito 4: 21-28.

Rist, Ray C

1973 The Urban School: A Factory for Failure. Cambridge, Mass.: M.I.T. Press.

Rodriguez, Richard
1983 Hunger of Memory: The Education of Richard Rodriguez. Toronto: Bantam Books.

Schwartz, A.J.
1969 Comparative Values and Achievement of Mexican-Americans and Anglo pupils. UCLA: Center for the Study of Evaluation, Graduate School of Education, report 37.

Skutnabb-Kangas, Tove
1980 Language in the process of cultural assimilation and structural incorporation of linguistic minorities. Rosslyn, Virginia: National Clearlinghouse for Bilingual Education.

Spilka, Bernard and Lois Gill
1965 "Some nonintellectual correlates of academic achievement among Spanish-American students." School Counselor 12: 218-221.

Peng, Samuel S. et. al.
1981 High School and Beyond: A National Longitudinal Study for the 1980s. A Capsule Description of High School Students. Washington, D.C.: National Center for Education Statistics.

So, Alvin Y
1983 "The High School and Beyond data set: Its relevance for bilingual education." The Journal of National Association for Bilingual Education 7: 13-22.

1982 What Matters? A Study of the Relative Impact Between SES and Language Background on Educational Achievement. Los Alamitos, CA.: National Center for Bilingual Research.

Steinberg, Laurence et. al.
1982 Dropping Out among Language Minority Youth: A Review of the Literature. Los Alamitos, CA.: National Center for Bilingual Research.

Wendling, Audrey and Delbert S. Elliott
1968 "Class, race differentials in parental aspirations and expectations." Pacific Sociogical Review 11: 123-133.

Whyte, William F.
1943 Street Corner Society. Chicago: University of Chicago Press.

Chapter 4. The Aspiration of Hispanic Parents

> My father always says:
> 'You don't need to go to
> school. You will have to
> work anyway.' (Heller,
> 1969a, p.49)

The above quotation reflects the population notion that Hispanic parents tend to have low aspiration for their children in terms of educational achievement. Heller's (1969a) study of Mexican-American youth further suggests that "parents, as a whole, neither impose standards of excellence for tasks performed by their children nor do they communicate to them that they expect evidence of high achievement" (p.37). In addition, "Mexican-American boys have often complained to me that they lacked encouragement from their parents, especially their fathers, to continue their schooling" (Heller, 1969a, 0.39). Similiarly, Anderson and Safar (1972) report that both Anglo and Hispanic parents have a shared "stereotyped view of Spanish Americans and Indians as little interested in education, as coming from families that place little value on education and do little to assist or support their children's attempts in school" (p.251). Teachers have shared this perception of low aspiration levels in Hispnaic parents. Manuel (1965) rreports that "most teachers will not help children because the parents do not cooperate, and most of the Spanish people are not interested in school activities" (p.76). Further, "in these homes there is often a lack of understanding and a resulting lack of an aggressive interest in the education of their children" (Manuel, 1965, p.78).

The usual explanation of such alleged low aspiration levels among Hispanic parents is cultural fatalism. Heller (1965a) points out that the "lack of emphasis upon 'making good' in conventional terms is consistent with the themes of fatalism and resignation which run through Mexican-American culture" (p.38). In another chapter, Heller (1969b) suggests that this cultural fatalism is an an adaptive response to the perceived barriers towards upward social mobility:

> "Mexican-Americans have long held on to the belief that formal education was useless for them and did not get them anywhere. They viewed it as leading their children not toward mobility, but toward frustration and humiliation. To help their children avoid the latter, parents pointed to those Mexican Americans who received an education and yet did not hold a job appropriate to it" (p.400)

The thesis of low aspiration levels in Hispanic parents has important policy implications, for it identifies the parents as a crucial factor in inhibiting the educational achievement of Hispanic students. Raising the aspiration level of Hispanic parents is therefore seen as a solution to the educational problems of Hispanic children. The low parental aspiration thesis and the associated solution divert attention of educational planners from educational institutions to Hispanic parents, Hispanic homes, and Hispanic culture. If the low aspiration thesis is accurate, then such diversion is appropriate. If the thesis is inaccurate, however, then focusing on raising aspiration levels becomes a useless activity and cultural fatalism becomes an explanation of a non-existent problem.

Despite of its significant policy implications, the low aspiration level thesis of Hispanic has seldom been questioned or examined critically. While a few social science studies have touched upon this issue (Anderson & Johnson, 1968; Parra & Hederson, 1982), most researchers have assumed the existence of a low aspiration phenomenon and built their argument on it. In contrast, the radical ethnic literature (see the collection of chapters by the Southwest Network, 1974) rejects outright the low aspiration thesis on ideological grounds without further investigation. As a result of this lack of study of Hispanic parental aspiration, many crucial issues surrounding the low aspiration thesis, such as relative aspiration levels, formation of aspiration levels, and social factors affecting aspiration levels, remain unclear.

Relative Aspiration Levels

The very concept of low parental aspiration is unclear. Since low is a relative term, the aspiration level of Hispanic parents must be measured against the aspiration level of another group as a basic step in testing the low aspiration thesis. Such comparison can be done at three levels.

One level is to compare Hispanic parental aspiration levels to white parental aspiration levels. Measurement at this level enables us to study ethnic differences in parental aspiration as well as to examine the assertion that Hispanic parents want less education for their children than white parents want for their children.

A second level is to compare Hispanic parental aspirations for thier children to their own educational background. Measurement at this level examines aspiration solely from the Hispanic parent's viewpoint, without taking the white parents' perspective into consideration. Thus, while Hispanic parents may or may not demonstrate lower aspiration levels than white parents, they may still want their children to go far beyond their own educational level. Such aspiration would be reflected in a high value on this measure. Conversely, a low value on this measure would suggest that an Hispanic parent wants his child to have an educational level that is even lower than his own.

A third level is to compare Hispanic parental aspiration with their expectation of their children's educational attainment. Measurement at this level enables us to examine whether Hispanic parents over-aspire,

aspire at the same level, or under-aspire relative to their realistic assessment how far their children may achieve. A low value here might suggest that Hispanic parents are not inclined to push their children up the educational ladder even though they think their children can make it, a finding that would support the low aspiration thesis. Conversely, a high value might suggest parental desire to encourage educational attainment and weaken the low aspiration thesis.

All three levels of comparison should be examined to obtain a comprehensive picture of relative aspiration levels. So far, no study has investigated all three levels. Further, all three measures should be low in order to support the low aspiration thesis.

Formation of Aspiration Levels

Another issue in need of study is the formation of Hispanic parental aspiration levels. When did Hispanic parents decide to send or not send their children to college? How committed are Hispanic parents to their expressed aspiration levels? The literature on Hispnaic parental aspiration seldom raised these two questions, but addressing them could shed light on the relationship parental aspiration and child attainment. The low aspiration thesis would be weakened if it can be shown that Hispanic parents have held high educational aspirations for their children over many years. Conversely, the thesis would be strengthened if it can be shown that parents have held low aspirations over many years. Aspirations might suggest committment and should be reflected in parental expressions of when they would like to see their children finish full-time education, start regualar jobs, get married, and have children of their own.

Social Factors Affecting Aspiration Levels

Cultural Integration. The low aspiration thesis has rested on a cultural fatalism explanation, but this explanation has not been tested with social science data. Both the low aspiration thesis and the cultural fatalism explanation may be tested by discovering whether Hispanic parents who are embedded in Hispanic cultural values have lower aspirations for their children than do parents who are less embedded in Hispanic culture (and thus more acculturated to the Anglo cultural values). Since Spanish language usage is a commonly-accepted indicator of integration to Hispanic culture (Kuvlesky & Patella, 1971; Leyva, 1975), a test of the cultural fatalism explanation will depend on whether Hispanic parents in Spanish-speaking homes have lower aspirations for their children than parents in English-speaking homes have for their children.

Social Class Background. In addition to cultural integration, social class background may affect the level of Hispanic parent aspiration. Working class Hispanic parents may have a lower aspiration level than middle class Hispanic parents (Stoddard, 1973). Since Hispanics, in general, come from a low socioeconomic background, the low aspiration of Hispanic parents may be an artifact of their social class background rather than cultural fatalism. If this is so, the low aspiration may be right but for the wrong reason.

Parent and Child Gender and Child Educational Performance. Other factors that my have impact on aspiration are parent's gender, children's gender, and children's educational performance at school. Gandara (1982) suggests that Hispanic mothers play a more active role in fostering children's educational drives than fathers. With respect to children's gender, the stereotype is that Hispanic parents hold high hopes for sons but not for daughters (Parra & Henderson, 1982). Furthermore, it has been reported that parental aspiration is just a feedback towards children's school performance: It is only when parents find out their children are doing well in school that they begin to develop high aspiration levels (Kahl, 1961; Kerkhoff & Huff, 1974).

Thus looking at the social factors of cultural integration, social class background, parent and child gender, and child educational performance, may help clarify the issues surrounding the low aspiration level. So far little social science research has been done on this issue and it is not clear in what ways the above factors may affect Hispanic parental aspiration levels. The low aspiration thesis and its cultural fatalism explanation will be strengthened if the effect of cultural integration remains after the effect of the other factors have been controlled, whereas the thesis and its explanation will be weakened if cultural integration effect decreased after controlling other social factors.

The Purpose of This chapter

The purpose of this chapter is to clarify the neglected issues which surround the low aspiration thesis in order to either substantiate or refute the thesis on empirical social science grounds. Toward this end, the first section of this chapter will describe the parent file of the High School and Beyond national data set on which our analyses were performed. In the second section, the three measures of relative aspiration will be applied to the data to examine the assertion that Hispanic parents have low aspirations for their children. In the third section, the formation of Hispanic parent aspiration will be analysed; and in the fourth section, social factors affecting the level of aspiration among Hispanic parents will be examined. The significance of our findings will be presented in the final section.

The High School and Beyond Data Set and Its Parent File

Funded by the National Center for Education Statistics (NCES), the High School and Beyond (HS&B) data set was the first wave of a national longitudinal study of cohorts of high school students in the United States in 1980. The HS&B project design included a highly stratified national probability sample of over 11,000 high schools with 36 seniors and 36 sophomores per school. In those schools with fewer than 36 seniors or sophomores, all eligible students were included in the sample. Cooperation from both schools and students was excellent. The overall response rate for schools was 91% and for student, 84%. Over 30,000 sophomores and 28,000 seniors enrolled in 1.015 public and private high schools across the nation participated in this study. The HS&B sample represents the nation's 10th and 12th grade population, totaling about 3.8 million sophomores and 3 million seniors in more than 21,000 schools in Spring, 1980 (Peng et al., 1981; NORC, 1980a; So, 1982).

In order to collect data from as many different sources as possible, the HS&b project distributed questionaires to various individuals such as students, parents, teachers, and school administrators. The present chapter focuses on the parent's questionnaire which included detailed information on parent's social background (e.g. ethnicity, sex, education, occupation, language status), parental aspiration for their children's education, student's sex, student's GPA at school, etc. (NORC, 1981).

The sample of parents was selected in two stages. At stage one, a systematic subsample of cooperating schools was selected. At stage two, a subset of cooperating students was selected within stage-one and parents of those students were then contacted for an interview. Completion rate was high because of the phone contact procedures. Completion rates were 92% for sophomores and 90% for seniors. After the data collection phase was completed, design weights were assigned to the data. Weights were designed to : (1) compensate for varying student selection probabilities, (2) compensate for differential cooperation rates among parents across schools within grade, and (3) project the parent sample sample to the national universe from which it was selected. All data reported in the tables of this chapter are derived from the weighed sample estimates.

The parent file of the HS&B data set migh be the first national data set that has included enough cases of Hispanic parents to analyse the nature of this population. The overall parent file included 6,223 fathers and mothers, 612 of whom were of Hispanic descent. Projected national estimates derived from this ample suggested approximately 6.5 million parents in the U.S. population, about 320,000 of whom are Hispanic.

Characteristics of the Hispanic Parents

Most of the parents in the Hispanic sample come from a Spanish-speaking background. Only 12% of this sample live in an English monolingual home while 4% live in a Spanish monolingual home, 36% live in a home where Spanish is the usual language and 48% live in an English home where Spanish is also spoken. It may be inferred that our Hispanic sample is actually a sample of Hispanic language minority parents.

With respect to the occupational level of Hispanic parents in the sample, 72% of the fathers and 53% of the mothers work in manual occupations. Approximately 33% of the mothers but only 6% of the fathers work in lower white collar (clerks, sales persons, or teachers) occupations. Twenty-three percent of the fathers and 14% of the mothers work in professional occupations. The data suggest a different pattern of occupational level for mothers and fathers. The large number of mothers at the lower white collar level may have an impact on the aspirations they have for their children.

With respect to educational attainment, 61% of the fathers and 71% of the mothers received a high school education or less; 28% of the fathers and 26% of the mothers had vocational training or some college education; and only 11% of the fathers and 4% of the mothers had 4 year of college or more. While neither mothers nor fathers had high level of education, educational attainment was less for mothers.

In general, the Hispanic sample from the HS&B data set matches the characteristics described in the literature on Hispanic parents: Parents come from Spanish-speaking homes and have low occupational levels and low educational attainment. Let us examine whether the Hispanic parents also exhibit a low level of aspiration for their children.

Relative Aspiration Levels

Contrary to the thesis of low aspiration, our data suggest that Hispanic parents have high hopes for their children and want their children to receive an education above the high school level. This high parental aspiration can be observed in all three measures of relative aspiration.

Table 4.1 shows that Hispanic parents and parents in the entire U.S. population possess comparable aspiration levels. Only 9% of Hispanic parents of Hispanic parents do not want their children to attend college, while 57% want four years or more college education for their children. This level of aspiration for Hispanic parents is higher than levels expressed by white parents or Indian parents but lower than levels expressed by Black parents or Asian-American parents.

Table 4.2 shows that Hispanic parents also aspire beyond their own educational background. Virtually all college-educated Hispanic parents want their children to go to college. Even parents who are educated at or below the high school level possess high aspirations for their children: only one-tenth of these parents do not want children attain educational levels beyond the level they themselves achieved.

The aspiration of Hispanic parents also sometimes exceeds their educational expectation on their children. As shown in Table 4.3, when parental aspiration is crosstabulated with their expectations on children, a number of parents appear to have higher aspirations for their children even than their expectations. Approximately 31% of the parents who want their children to have 4 years of college acknowledge tht their children may only attend up to the level of vocational training or some college. Over one-fifth of the parents who want vocational training for their children expect that their children may only have an education tht are high school and below.

The relative aspiration data suggests that Hispanic parents have high educational aspirations for their children. They want their children to go to college as much as white parents want their children to have college-level education; they want their children to have education that is far beyond their own attainment levels; and they want an education for their children even more than they expect their children can attain. These findings weaken the low aspiration level thesis but the formation of aspiration and social factors contributing to aspiration remain to be addressed.

Formation of Parental Aspiration

Table 4.4 provides some clues to the process by which Hispanic parents develop educational aspirations for their children. For those parents who want to send their children to a four year children, Table 4.4 shows that this college aspiration emerged as early as when their children were still in primary school. About three-fourths of parents holding college aspirations had thought of college when their children were in grade 6, and their college aspiration rose steadily as their children approached high school graduation. This finding suggests that Hispanic parental aspiration for college level attainment is an educational aspiration that emerged early and grew over a long period of time.

Another set of figures that support the notion of anticipated educational attainment are presented in Table 4.5, which shows that Hispanic parents who hold college aspirations for thier children anticipate certain behavior that suggest expectation of four years of college or more. They expect their children to finish full-time education after age 22 and to start regular full-time job by their early twenties. They also expect their children to get married and have children after age 25. These findings suggest that Hispanic parents expect their children to defer marriage, having children, and full-time employment in order to finish higher education.

We have shown that Hispanic parents have high aspirations and that they have held these aspirations over-time, but it is still necessary to explain the social factors that affect their level of aspiration. This is the task we shall attempt in the next section.

Social Factors Affecting Aspiration Levels

Cultural Integration The literature suggests cultural fatalism as an explanation of the low aspiration of Hispanic parents. If this cultural explanation is correct, we may expect that Hispanic parents in Spanish homes, because they exhibit a high degree of integration into Hispanic culture, will have a lower aspiration than Hispanic parents in English homes. Although our findings suggest high aspiration instead of low aspiration, it is still worthwhile to examine the validity of the cultural fatalism explanation.

The results reported in Table 4.6 do not support the cultural explanation. Hispanic parents in Spanish homes show approximately the same level of aspiration as Hispanic parents in English homes, and the statistical test based on the more conservative unweighted sample N is not significant at .05 level. This result suggests that both assimilated and non-assimilated Hispanic parents want high education for their children, and their cultural differences have made little difference in aspiration levels.

Social Class Background Data on parental occupation, reflecting social class background, enables us to test the social class background explanation. As shown in Table 4.6, high aspiration is a value that is generally shared among the Hispanic parents. Even working class Hispanic parents express a fairly high aspiration level: Only 10% of manual fathers and 15% of manual mothers do not aspire their children to continue education after high school graduation, while 90% of manual fathers and 85% of manual mothers aspire their children to attain at levels beyond high school. This finding refutes the stereotypical notion that Hispanic working class parents have little desire to send their children to college.

However, on closer examination, the figures on parental occupation in Table 4.6 do reveal the impact of social class background on parental aspiration. Professional and lower white collar Hispanic parents have a relatively higher aspiration level than working class parents. Not only do the former groups aspire their children to receive higher education, they also specifically aspire their children to complete college. Approximately 90% of professional fathers want a four year college education for their children, whereas only 55% of working class fathers want their children to attain such a level. The Hispanic mothers show a different pattern. For Hispanic mothers, lower white collar workers have a higher aspiration level than the professional women. This finding supports the sociological literature's observation that lower white collar mothers, who have one foot in the middle class and another foot in the working class, provide a high educational drive for their children (Banks, 1976; Cohen, 1965; Kraus, 1964).

Parent and Child Gender   Gender of both parent and children have little impact on aspiratio level. As shown in Table 4.6, there is little difference between father's aspiration level and mother's aspiration level, or between aspirations for sons and daughters. Moreover, these differences are not statistically significant at the .05 level. Our findings suggest that Hispanic mothers and fathers hold similiar aspirations for their children's college futures; and as a group, Hispanic parents do not hold higher aspirations for their sons than for their daughters.

Child Educational Performance   While gender does not appear to influence aspiration level, the child's educational performance, as measured by grade point average, exerts a strong effect. When children do well in school and have a GPA mostly B's and above, their parents have a high aspiration of sending them to a four year college. On the other hand, when children do poorly in school and having a GPA below D's, their parents have lowered their aspiration to vocational school or two year college. Our findings support the observation of Bordua (1960) and Kahl (1961) that many parents begin to emphasize college only after their children have shown evidence of good performance at school.

Regression Analysis The above findings are based on simple crosstabulations. While they show the effect of one variable on aspiration, they do not tell us whether this effect will remain after controlling for the effects of other independent variables. For this reason, we have performed a multiple regression analysis with language status, SES, children's gender, and GPA as independent variables. We carried out the regression analysis two times: One analysis was conducted for the fathers and another for the mothers, on the grounds that the occupational attainment of fathers and mothers are different.

Table 4.7 presents the results of regression analysis. Language status does not have a significant effect on aspiration and the cultural explanation offered for the low aspiration thesis is again not supported. Children's gender also does not exert any effect on aspiration; however, social class background, as measured by the dummy variables of profession and lower white collar occupational level, has an impact on parental aspiration even after the effects of other variables are controlled. For fathers, professional occupational level makes a difference; for mothers, lower white collar occupational level influences aspiration. These findings confirm the assertion that professional fathers and lower white collar mothers provide strong educational drives for their children.

Conclusion

This chapter takes issue with the low aspiration thesis which asserts that Hispanic parents are seldom interested in the educational attainment of their children. We examined the validity of this thesis by using three different measures of aspiration; we studied the process by which Hispanic parents develop their levels of aspiration; and we questioned the cultural fatalism explanation for the low aspiration thesis.

Our findings suggest an alternative high aspiration thesis: Hispanic parents have high aspirations for their children as compared to the parent population in the American society, as compared to their own educational background, and as compared to their expectation for their children. We also found that Hispanic parents appear determined about their aspirations: They started forming aspirations for college attainment when their children were still in elementary school, and they expect their children to defer marriage, having children, and working full-time until formal education is typically completed in the early to mid-20s. We did not find any basis for the cultural fatalism explanation, although social class background has a moderate impact on parental aspiration even after other variables are controlled.

While our findings do not address the origins of high parental aspiration levels, we can speculate that they are an historical product of the Civil Rights Movement. The ethnic protest and inclusion of Hispanics into the political arena in the 1960s and 1970s eliminated a few barriers toward upward mobility, and a small stratum of Hispanic professional and lower white collar workers began to form. About a third of the Hispanic parents in the parent file of the HS&B data set are white collar workers. Surely this figure is small compared to the Anglo population, and surely most Hispanic white collar workers are actually clerks, teachers, or low level administrators. But the formation of this small white collar strata among the Hispanic population may have considerably altered the aspiration level of the Hispanic parents. White collar Hispanic parents have high aspiration for their children and want their children to follow or exceed their occupational achievement. But even the working class Hispanic parents will perceive the formation of a white collar Hispanic sector as a sign of the U.S. society opening up for Hispanic upward mobility. Thus the working class Hispanic parents, too, may have raised their aspiration level and want to send their children to college.

Our findings question the assertion that disinterested Hispanic parents and fatalistic Hispanic culture are factors that lead to the low educational attainment of Hispanic students -- an assertion that is proposed by the cultural deprivation perspective. Instead, we have found aspiring parents who hold aspirations for high educational attainment for their children. In light of these findings, it seems appropriate to shift the focus of the study of Hispanic education from Hispanic parents and culture to outside institutional factors such school, teacher, and availability of financial aid.

In the next section, there are two chapters that examine the structural perspective which emphasizes the educational institutional factors. Chapter 5 studies the faulty barrio school thesis which argues that Hispanic children have low educational attainment because the schools they attend are failing them. Similarly, Chapter 6 studies the impact of teacher's ethnicity on Hispanic student achievement. It especially focuses some of the neglected areas in the teacher-student researches, such as the process of labeling of Hispanic students by Hispanic teachers, the labeling of 'good' Hispanic students, and the effectiveness of Hispanic teacher labeling.

Table 4.1. Ethnic Differences in Parental Aspiration

Parental Aspiration	Ethnic Background					
	Hispanic	White	Indian	Black	Asian	Total
High School or below	9%	7%	11%	5%	4%	7%
Vocational-some college	35	39	53	34	16	38
Four year college or above	57	54	37	62	81	56
Total % (N)	101% (317,860)	100% (4,886,243)	101% (153,942)	101% (792,157)	101% (85,348)	101% (6,235,553)

Table 4.2. Parental Educational Background and Parental Aspiration (for Hispanics only)

	Father Education		
Father Aspiration	High school or below	Vocational-some college	Four year college or above
High school or below	11%	2%	0%
Vocational-some college	34	29	8
4 yr college or above	55	69	92
Total % (N)	100% (67,906)	100% (29,163)	100% (17,324)

	Mother Education		
Mother Aspiration	High school or below	Vocational-some college	Four year college or above
High School or below	12%	5%	0%
Vocational-some college	43	36	5
4 yr college or above	46	69	95
Total % (N)	100% (133,433)	100% (60,168)	100% (8,932)

BEST COPY AVAILABLE

Table 4.3. Parental Aspiration and Perceived Children Aspiration (for Hispanics only)

	Parental Aspiration		
Perceived Children expectation	High School or below	Vocational-some college	4 yr college or above
High School or below	86%	22%	4%
Vocational some college	13	73	27
Four year college or above	2	5	69
Total % (N)	101% (26,629)	100% (110,551)	101% (176,804)

Table 4.4. When do Hispanic parents think that their sons/daughters would someday be going on to a college or university?

When thinking of sending child to college?	Parental Aspiration		
	High School or below	Vocational some college	Four year college or above
When child was in 6-7th grade			
yes	36%	46%	76%
no	64%	55%	24%
When child was in 8-9th grade			
yes	48%	55%	79%
no	52%	45%	21%
When child was in 10th grade			
yes	37%	58%	82%
no	64%	42%	18%
When child was in 11th grade*			
yes	28%	75%	83%
no	72%	25%	17%

*For senior students only.

BEST COPY AVAILABLE

Table 4.5. Hispanic Parental Aspiration and Children's Referred Gratification

Age expect child to	High school or below	Vocational-some college	4 yr college or above
Get married			
18 or -	25%	15%	7%
19 - 21	35	28	14
22 - 24	16	32	36
25 - 30	25	26	44
Have 1st child			
18 or -	15%	7%	4%
19 - 21	20	13	7
22 - 24	44	39	26
25 - 30	20	41	64
To start regular job			
18 or -	56%	43%	19%
19 - 21	39%	44	25
22 - 24	5	12	45
25 - 30	0	2	11
To finish full-time education			
18 or -	79%	18%	4%
19 - 21	14	45	17
22 - 24	4	32	56
25 - 30	3	5	24

BEST COPY AVAILABLE

Table 4.6. Social Factors on Hispanic Parental Aspiration

	Parental Aspiration[*]			
Social Factors	High School or below	Vocational-some college	4 yr college or above	Total % (N)
Home Language[**]				
English Monolingual	5%	30	65	100% (35,191)
English Dominant	10%	34	57	101% (142,150)
Spanish Dominant	9%	40	51	100% (107,507)
Spanish Monolingual	5%	37	58	100% (13,034)
Father Occupation				
Prof., Manager, technicians	4%	6	90	100% (34,438)
Clerks, slaes, teachers	0%	34	66	100% (6,677)
Manuel workers	10%	35	55	100% (66,407)
Mother Occupation				
Prof., Manager, technicians	3%	40	57	100% (23,338)
Clerks, sales, teachers	1%	34	66	101% (45,100)
Manuel workers	15%	39	47	101% (72,827)
Parental Gender[**]				
Father	7%	29	64	100% (114,394)
Mother	10%	39	52	101% (203, 468)
Children's Gender[**]				
Son	9%	29	63	101% (127,883)
Daughter	9%	38	53	100% (170,571)
Children's GPA at High School				
Mostly A's	5%	13	83	101% (34,205)
Mostly B's - half A's and half B's	2%	32	66	100% (120,272)
Mostly C's - half B's and half C's	13%	39	48	100% (131,318)
Mostly below D's - half C's and half D's	22%	54	24	100% (27,196)

[*] Father aspiration is used for crosstabs with father occupation and father gender; mother aspiration is used for c sstabs with mother occupation and mother gender.

[**] Not significant at 0.05 level when unweighted sample is used to calculate statistics.

BEST COPY AVAILABLE

Table 4.7. A multiple regression analysis on Hispanic Parental Aspiration (Separately for father and mother)*

Correlation Matrix, Means, Standard Deviations (father coeffecients above diagonal weighted N=104,151; mother coeffecients below diagonal weighted N=189,975)

	Parental Aspiration	Prof.	lower white	Spanish home	Male child	GPA	$\overline{X}$	S.D.
Parental Aspiration	--	.249	.019	.084	.150	.247	7.29	2.14
Professionals	.014	--	-.163	-.267	.009	-.054	.30	.46
Lower White	.201	-.190	--	.087	.056	-.050	.06	.23
Spanish home	-.033	-.125	-.219	--	.051	.132	.38	.49
Male Child	.015	.069	.016	-.028	--	.019	.44	.50
GPA	.327	.107	-.075	.187	-.052	--	80.99	7.91
Mean ($\overline{X}$)	6.88	.11	.22	.42	.39	80.05	--	--
Standard Deviation (S.D)	2.36	.32	.41	.49	.49	8.16	--	--

Standardized Regression Equations

R^2 = 0.17 for father: Aspiration = 0.30(PROF) + 0.06(LOWER WHITE)** + 0.12(SPANISH HOME)**
+ .13(MALE STUD)** + 0.25(GPA)

R^2 = 0.16 for mother: Aspiration = 0.00(PROF)** + 0.22(LOWER WHITE) - 0.05**(SPANISH HOME)
+ 0.03** (MALE STUD) + 0.35 (GPA)

---

*Parental Aspiration is a scale of 10 from below high student (1) to Ph.D (1°). Professional, lower white are two dummy variables created from father and mother occupation, with manual worker as the criterion category. Spanish home is a dummy variable, 1=Spanish home, 0=English home; so is male child, 1=male, 0=female.

**Not significant at 0.05 level when unweighted N is used for the statistical tests.

References

Anderson, J.G., Johnson, W.H.
1968 Sociological determinants of achievement among Mexican-American students. Eric ClearingHouse on Rural Education and Small Schools, New Mexico State University (ED 017 394).

Anderson, J.G., Safar, D.
1971 The difference of differential community perceptions on the provision of equal eduational opportunities. In Wagner, N.N., Haug, M.J. (ed). Chicanos: Social and Psychological Perspectives. Saint Louis: The C.V. Mosby Co.

Banks, O.
1976 The Sociology of Education. New York: Schocken Books.

Beilin, H.
1956 The pattern of postponability and its relation to social class mobility. The Journal of Social Psychology 44: 33-48.

Bordua, D.J.
1960 Educational aspirations and parental stress on college. Social Forces 38: 262-269.

Cohen, E.C.
1965 Parental factors in educational mobility. Sociology of Education, 65:

Demos, G.D.
1962 Attitudes of Mexican-american and Anglo-Amercian groups toward Education. The Journal of Social Psychology 57: 249-256.

Gandara, P.
1982 Passing through the eye of the needle: High-achiving Chicanas. Hispanic Journal of Behavorial Sciences 4: 167-179.

Heller, C.S.
1969a Mexican American Youth. Forgotten youth at the crossroads. New York: Random House.

Heller, C. S.
1969b Class as an explanation of ethnic differences in upward mobility. In Heller, C.S. (ed.) Structural Social Inequality. London: Macmillan co.

Kahl, J.A.
1961 Common man boys. In Halsey, A.H., Floud, J., and Anderson, C.A. (ed.) Education, Economy, and Society. New York, The Free Press of Glencoe.

Kerckhoff, A.C., Huff, J.L.
1974 Parental influence on educational goals. Sociometry 37: 307-327.

Krauss, I.
1964 Sources of educational aspirations among working class youth. American Sociological Review 29: 867-879.

Kuvlesky, W.P., Patella, V.M.
1971 Degree of ethnicity and aspirations for upward social mobility among Mexican American youth. Journal of Vocational behavior, 1: 231-244.

Leya, R.
1975 Educational aspirations and expectations of Chicanos, non-Chicanos, and Anglo-Americans. California Journal of Educational Research 26: 27-39.

Manuel, H. T.
1965 Spanish-speaking Children of the Southwest. Austin, Texas: University of Texas Press.

National Opinion Research Center.
1980 High School and Beyond: Information for Users. Base Year 1980. Report to the National Center for Educational Statistics under contract no. 300-78-0208. Chicago: National Opinion Research Center.

National Opinion Research Center.
1981 High School and Beyond: Parent Questionaire Codebook. Report to the National Center for Educational Statistics under contract no. 300-78-0208. Chicago: National Opinion Research Center.

Parra, E., Henderson, R.W.
1982 Mexican-American perceptions of parent and teacher roles in child development. In Fishman, J.A., Keller, G.D. (ed.) Bilingual Education for Hispanic Students in the United States. New York: Teacher College Press.

Peng, S.S., Fetters, W.B., Kilstad, A.J.
1981 High School and Beyond: A National longitudinal study for the 1980s. A capsule description of high school students. Washington, D.C.: National Center for Education Statistics.

So, A. Y.
1983 High School and Beyond data set: Its relevance for bilingual education researchers. NABE Journal 7: 13-22.

Stoddard, E.R.
1973 Mexican Americans. New York: Random House.

Part III. The Structural Perspective

Chapter 5: The Barrio Schools

As an alternaive to the cultural deprivation perspective which argues that Hispanic home lack the achievement motivation for a Hispanic child's success (Bloom. Davis, and Hess, 1965; Gordon and Wilkerson, 1966; Heller, 1966; Riessman, 1963), the faulty barrio school thesis (Carter, 1971; Carter and Segura, 1979) has made a significant contribution to our understanding of the Hispanic educational process. Briefly stated, the faulty school thesis argues that Hispanic children have low educational attainment because the schools they attend are failing them, not because there is something deficient in Hispanic children, Hispanic homes, or Hispanic culture. This thesis holds that Hispanic children attend schools which are ethnically segregated, under-financed, poorly equipped, staffed by inferior teachers, offering irrelevant curriculum, and dominated by authoritarian rules. These barrio school characteristics are said to produce a negative school environment which inhibits learning, promotes absenteeism and alienation, and leads to Hispanic children dropping out of school. This faulty barrio school thesis has important policy implications because it calls for improvement of Hispanic schools rather than for adjustment of Hispanic children to the school programs.

Carter's researches (Carter, 1971; Carter and Segura, 1979), however was conducted in the 1960s and the early 1970s. During that time, massive institutional changes had just started to take place, and it was too early to observe their full impact on Hispanic education. The faulty barrio school thesis might, therefore, be outdated by its own success in achieving school reforms. Consequently, it is necessary to examine anew the major tenets of the faulty school thesis to determine whether it is still valid in the 1980s.

In this chapter we will first examine more closely the major tenets of the faulty barrio school thesis. Second, we will describe the most recent national longitudinal data set which contains enormous amounts of information on barrio schools as well as on other types of schools. Third, we will use the national data set to examine the validity of the faulty school thesis. Finally, we will comment on the implications of our findings.

The Faulty Barrio School Thesis

Ethnic Segregation of Barrio Schools The faulty school thesis holds that students are ethnically segregated into barrio schools. While de jure segregation has been declared unconstitutional, Hispanic children still attend schools where they form the ethnic majority. The result of this ethnic segregation is the isolation of Hispanic children from substantial contact with other ethnic groups. Since the barrio schools are generally staffed by Anglo administrators and teachers, it is asserted that barrio school staff have done little to promote Hispanic parental participation in school activities, consequently, leading to a dearth of real communication between the barrio schools and the Hispanic community. For our research purpose, the key issue is whether desegregation efforts, such as busing, have changed the pattern of ethnic segregation and isolation. In the late 1970s, Carter and Segura (1979) predicted that ethnic segregation would continue. We need to investigate whether this is true in the 1980s.

Under-Financing of Barrio Schools It has been suggested that school districts with high percentages of Hispanic students have generally been under-financed because it is impossible to tax the economically depressed community at higher rates. While barrio schools may have low school revenue, the availability of federal and state financial assistance in the 1970s might have solved this under-finance problem. Considering the possiblity of strong barrio school finance, Carter and Segura (1979:226) observe that "California children residing in poor districts will have approximately the same amount of money spent on their schooling as they would if they lived in rich districts." While this observation may apply in California, we need to investigate whether it is true for barrio schools in other states as well.

Poor Facilities in Barrio Schools Related to the school finance issue is the possibility of poorer facilities in barrio schools. Given low revenue, barrio schools have seldom been able to update their physical plants. It has been pointed out that the lower the socioeconomic status of students in a school, the poorer the quality of the school's physical facilities. Old Mexican schools are frequently reported as being overcrowded, badly maintained, poorly furnished, and rundown. If such deplorable conditions are seen as a baseline, it would be interesting to study if and how facilities might have been improved in the 1980s. Further, it would be interesting to determine if barrio schools possess other modern equipment, such as media production and subject area resource center, as well as more modern physical facilities.

Inferior and Inadquately Trained Teachers in Barrio Schoolss In addition to poor school facilities, barrio schools are reported to hve a high percentage of inferior and inadequately trained teachers. It has often been said that minority schools serve as training institutions. Beginning teachers are often assigned there, and those who do well are subsequently moved to high status (more Anglo) schools. Those teachers who remain in minority schools are described as having low morale, lacking motivation to teach, and frequently absent from duty. Little research has been carried out on this sensitive issue. Consequently, we do not know whether teachers in barrio schools are inferior in qualifications or lacking in motivation as compared to teachers in other kinds of schools.

Irrelevant Curriculum in Barrio Schools Another assertion of the faulty barrio school thesis is irrelevant curriculum. Barrio schools offer few advanced courses that prepare Hispanic students to enter higher education. It is also argued that barrio schools seldom modify their formal curriculum to include elements relevant to the languages, lives, expectations, and experiences of Hispanic children. For example, Carter (1971) points out that most barrio schools do not offer Spanish-surnamed students an opportunity to learn about Hispanic heritages or the Spanish language. However, the implementation of new federal programs in the 1960s and 1970s, such as ethnic studies and bilingual programs, may have made the barrio school curriculum more relevant to the needs of Hispanic students. Hence, we need to find out whether this is so in the 1980s.

Authoritarian Rules in Barrio Schools Barrio schools are said to be less permissive than Anglo schools within the same district. Carter explains this authoritarian school rules phenomena by culture and language gap between school staff and students: "Their culture and language are unknown and bad. It appears that the larger the percentage of Mexican-American students the more necessary is the use of strong authority in order to control and convert them" (Carter, 1971:96). In the wake of the Civil Rights Movement and student protests in the late 1960s and the early 1970s, however, there seems now to be a swing of the pendulum from authoritarian rules to excessive permissiveness and school anarchy. It is argued that once the authority of the school administrators is challenged, they develop a "don't care" attitude, encouraging the spread of school disciplinary problems such as robbery and drugs. Since little up-to-date research has been carried out on barrio schools in the 1980s, it is not known whether authoritarianism or anarchism is more prevalent in barrio schools today.

The faulty school thesis argues that these factors have produced a negative school environment which leads to low Hispanic educational achievement. But as we have previously pointed out, one or more of these barrio school characteristics may have been transformed as a result of the institutional changes in the 1970s. Our tasks then are to investigate whether any of these characteristics have changed, whether students in barrio schools still have lower educational achievement than those in other types of schools, and in what ways changing the barrio school characteristics relates to educational achievement. In order to answer the above questions, it is necessary to have a national longitudinal data set which includes information on barrio school characteristics and student achievement. The High School and Beyond data set is particularly useful for our purposes.

The High School and Beyond Data Set

Funded by the National Center for Education Statistics (NCES) and conducted by the National Opinion Research Center (NORC), the High School and Beyond data set (HS&B) was the first wave of a national longitudinal study of the cohorts of high school students in the United States in 1980. Over 30,000 sophomores and 28,000 seniors enrolled in 1,015 public and private high schools across the nation participated in this study. The HS&B sample represents the nation's 10th and 12th grade populations, totaling about 3.8 million sophomores and 3 million seniors in more than 21,000 schools (Peng et. al., 1981; NORC, 1980a; So, 1983).

Most of the data on the schools were collected between February and May 1980. A field representative left a copy of the school questionnaire with the principal and asked that he (or his designate) fill it out. The representative then picked up the questionnaire on the survey day. If it was not yet completed, the principal was asked to mail it to NORC. If the questionnaire was not received at the central office within 2 weeks, follow up telephone calls were made to the schools. Because of these efforts, a total of 988 school questionnaires out of 1,015 schools were completed, representing a response rate of 97% (NORC, 1980b).

Since the school questionnaire was completed by a school official, it may represent the school administrator's viewpoint rather than an objective assessment. For instance, it is possible that administrators may under-estimate teacher's absenteeism while over-stating student's college-going rate. However, as Cicourel and Kituse (1963) point out, school official definitions have important implications on student behavior and thus should be taken into consideration in studying the impact of school characteristics on student achievement. For this reason, we present the figures as they are reported by the school administrators, although we want to point out the possibility of administrator biases.

Moreover, we confine our analyses to the public schools only. Since we want to find out whether the new federal programs have any impact on barrio school students, it is inappropriate to include private schools in our sample. Furthermore, private high density Hispanic schools have been found to be quite different from public barrio schools (Carter, 1971).

Due top the ethnic heterogenity of the barrio public schools, it is necessary to classify them into the following three categories: (1) Hispanic school, in which Hispanics are the majority of the student population (50% or more), and no other ethnic student group dominates the school population (both Black and white students are less than 30% of the studnet population). (2) Hispanic-white school, in which both Hispanics and whites are over 30% of the student population, while Black are under 30%. (3) Hispanic-black school, in which both Hispanic and Black are over 30% of the student population, while the white students are under 30%. Table 5.1 reports the sample characteristics of these three types of barrio schools. Hispanic schools have an average of 80% Hispanic students and the remaining students are mostly white. Hispanic-white schools have approximately equal numbers of Hispanic and white students. Hispanic-black schools have approximately 49% Hispanic students, 40% black students, and 11% white students. There may be substantial differences among these three types of barrio schools in terms of school characteristics and student achievement, and these intra-barrio school differences are often neglected by social researchers.

Characteristics of these three types of barrio schools will be compared with characteristics of white schools, where over 98% of the student body is white. Barrio schools will also be compared with Black schools, where over 70% of the student body is Black, and with All public schools, which is composed of all the public schools in the U.S. Our disucssion, however, will mainly focus on the similarities and differences between the three types of high density Hispanic schools and the white schools. In passing, it may be noted that the cutoff point used to define the various school types is based on two consideration: We wanted to include as many schools from the HS&B data set as possible in our analyses, but at the same time try to maintain the distinctive ethnic characteristics of each type of school.

Overall, the total sample of 868 public schools consists of 40 Hispanic schools, 48 Hispanic-white schools, 18 Hispanic-black schools, 54 black schools, 198 white schools. These sample figures project to 171 Hispanic schools, 290 Hispanic-white schools, 79 Hispanic-black schools, 799 Black schools, and 6251 white schools in the 16,042 public school universe. Since the HS&B data set oversampled Hispanic schools, all the figures presented in the tables of this chapter are based upon the weighted population estimates instead of the sample estimates.

Table 5.1 shows that the Hispanic schools are generally larger than the white schools (1,191 students versus 513 students), and have a larger percentage of students classified as disadvantaged (49% versus 10%). With respect to the mixed ethnic schools, the Hispanic-white schools seem more similiar to the white schools than to the Hispanic schools; whereas Hispanic-Black schools have characteristics of both the Hispanic schools and the Black schools. There are also geographical differences. The Hispanic schools and the Hispanic-white schools were mostly drawn from the West; the Hispanic-Black schools and the white schools were drawn mostly from the North and the North-east; and the Black schools were distributed across the South, the West, and the North.

With these sample school characteristics in mind, let us examine the faulty barrio school thesis with the HS&B data.

Results

Ethnic Segregation in Barrio Schools The assertion that Hispanic children attend segregated schools is supported by the findings presented in Table 5.2. While the Hispanic schools are only 1% of the U.S. public schools, they contain 23% of all Hispanic students and 21% of all Hispanic teachers. When we examine all three types of barrio schools (i.e. Hispanic, Hispanic-white, Hispanic-black), together they make up 3.5% of U.S. public schools, but they contain 47% of Hispanic students and 39% of Hispanic teachers. This finding suggest that almost half of the nation's Hispanic students and four-tenths of the nation's Hispanic teachers are placed in only 540 public barrio schools. This intensive segregation pattern can also be observed for the Blacks: Thirty-six percent of black students and 40% of Black teachers are placed in 799 public ghetto schools.

Dominance of white teachers is shown in Table 5.3. While Hispanic schools have an average of 80% of Hispanic students, they have a higher percentage of white teachers (52%) than Hispanic teachers (46%). This dominance of white teachers is even more obvious in Hispanic-white schools and Hispanic-Black schools, where the percentage of white teachers reaches as high as 86% and 65% respectively. However, in white schools where 99% of the students are white, almost all the teachers are white: There was no Black teachers and only 1% of Hispanic teachers in white schools.

How does this pattern of ethnic segregation and the dominance of white teachers affect the relationship between the barrio schools and the Hispanic community? Table 5.3 suggests a dearth of real communication between the barrio schools and Hispanic parents. In the Hispanic-Black schools, almost half of the school administrators judge parents' lack of interest in student progress and in school matters as serious. Similarly in the Hispanic schools, approximately one out of three administrators judge parents' lack of interest as serious. In contrast, only 7% of administrtors in white schools judge parents' lack of interest as serious. This figure suggests that white parents are more involved with the white schools than the Hispanic parents are with the barrio schools.

These findings show that almost half of the Hispanic students still attends highly segregated schools which are only weakly linked to the Hispanic community. It appears that desegregation efforts in the late 1960s and early 1970s have not changed the dominant pattern of ethnic segregation and isolation. It is important, therefore, to study whether the other institutional characteristics are similiarly unaffected.

Under-finance of Barrio Schools The question of whether federal programs have strengthened the financial position of the barrio schools is difficult to answer. While data presented in Table 5.4 addresses this issue, we must interpret the figures cautiously. Almost 50% of the schools were relucant to reveal information regarding school finance. Thus the figures reported in Table 5.4 are based only on those schools that revealed their per pupil expenditure data. In addition, there may be a regional effect since almost all Hispanic schools were drawn from the West and the white schools were mostly selected from the North. Thus the dollar figures in Table 5.4 are merely suggestive and not conclusive.

The figures on expenditure per pupil at the district level show that districts containing Hispanic and white schools spend approximately the same money per pupil ($1,663 and $1,648 respectively). However, the figures on expenditure per pupil at the school level show that Hispanic schools spend $323 less than the average school in the district, while the white schools spend $154 more than the average school in the district. Comparing Hispanic and white school per pupil expenditure shows that white schools spend $458 more per pupil than the Hispanic schools. these figures alone support the assertion that barrio schools are under-financed compared to white schools. However, when we examine other types of barrio schools, e.g. the Hispanic-black schools, our findings support the equal-finance statement.

The Hispanic-Black schools' expenditure per pupil is close to that of the white schools ($1,903 and $1,802 respectively). Hispanic-Black schools may have more money to spend on their students due to their participation in federally funded programs. Nearly all the Hispanic-Black schools participated in the Title 1 program for the economically disadvantaged (100%), the Title IV program for the library (93%), the Title VII program for bilingual education (98%), as well as in the comprehensive employment and training act program (96%). These participation figures are the highest among all the schools types reported here. There may therefore be a connection between participation in federal and state financial programs and the upgrading of the financial position of the barrio schools. If this is so, we need to determine if there is also an upgrading in the facilities available to the students.

Poor Facilities in Barrio Schools Table 5.5 shows school facility data. The Hispanic-Black schools again stand out on a number of characteristics, such as physical facilities, learning centers, and suppportive personnel. Except for the fact that few Hispanic-Black schools have indoor student lounges, these schools have the highest percentages of departmental office (67%), student cafeterias (98%), occupational training centers (38%), media production facilities (68%), teaching resources for teachers (40%), remedial reading and math laboratories (100%), 1 or more counselors (100%), curriculum specialists (46%), remedial specialists (92%), librarians (100%), teaching aids (100%), and security guards (100%).

The other types of barrio schools, i.e., the Hispanic schools and the Hispanic-white schools offer approximately the same kind of facilities as the white schools. Whereas the barrio schools have large library holdings, they have less books per pupil. In terms of physical facilities, barrio schools have a higher percentage on indoor student lounges; but are similiar to the white schools in departmental office, student cafeteria, and child care facilities. Hispanic schools, Hispanic-white schools, and white schools have equivalent, and high percentages, of modern teaching facilities such as media production, counselors, remedial laboratories and remedial specialists.

These findings then do not support the assertion that the barrio schools offer poorer facilities than the white schools. Perhaps the massive efforts in the 1960s to adjust the child to the school environment have contributed to equivalent facilities in the barrio schools and white schools. However, upgrading school facilities is one thing; raising the quality of barrio teachers is another. The success of the former does not imply the latter. For this reason, we also have to examine the barrio school teachers.

Inferior Teachers in Barrio Schools Table 5.6 shows that barrio school teachers are equivalent to white school teachers in terms of percentage of teachers with M.A. or Ph.D. degrees, by the first salary step for a B.A. degree, rate of teacher turnover, and stability of teachers at a school for 10 years or more. Thus the barrio and white school teachers have similiar academic parparation levels, they earn similar salaries, and they stay in their respective schools equally long.

Other indicators, however, do not show such a favorable picture. The student-teacher ratio in the barrio schools is generally higher than that in the white schools, indicating that students in the barrio schools are more likely to be placed in larger classes and receive less teacher attention than their counterparts in white schools. In addition, teachers in Hispanic-white and Hispanic-Black schools are more likely to strike (12% and 45%) than teachers in white schools (3%). Thus the teachers in Hispanic-white and Hispanic-Black schools may be more dissatisfied with their teaching conditions than their counterparts in the white schools.

Dissatisfaction is also suggested by the answers to teacher absenteeism and lack of motivation. Although these questions were answered by school administrators and might reflect attempts to mininize the degree of teacher dissatisfaction, it is still surprising that only 5% of Hispanic-Black school administrators and 10% of Hispanic school administrators report no teacher absenteeism problem. Moreover, 46% of Hispanic-Black school administrators and 21% of Hispanic school administrators report that teacher absenteeism is a moderate or serious problem. For the white schools, the figures on teacher absenteeism are much lower. Only 16% of the white school administrators judged absenteeism to be a moderate or serious problem and 84% report that it is a minor problem or does not exist at all. Comparatively teacher absenteeism seems to be a serious problem in barrio schools.

These findings together suggest that despite the fact tht the barrio school and white school teachers have similar academic preparation and stay in their schools equally long, the former teaches a larger class, is more likely to strike, has a higher absenteeism rate and is more alienated from teacher than the latter. All these findings suggest that, teacher qualification aside, the teaching services delivered to students by barrio teachers may not be as good as those delivered by their white school counterparts.

Irrelevant Curriculum in Barrio Schools It has been argued that barrio school curriculum neither prepares students to enter higher education nor includes culturally relevant courses that are sensitive to the needs of Hispanic students. The findings in Table 5.7 enable us to examine this assertion more closely.

College prepartory course are offered in the barrio schools in approximately the same proportion as they are offered in the white schools. Most of the barrio schools offer chemistry, physics, trigonometry. A considerable percentage of the barrio schools also offer academic courses such as calculus, economics, and psychology, and advanced language courses such as 3rd year Spanish and French. In addition, applied courses such as automechanics and wood/mechanics shop are taught in similar proportions in barrio and non-barrio schools. Further, comparably small proportions of the barrio and non-barrio schools offer college board advance placement courses (20% in the Hispanic schools, 29% in the Hispanic-white schools, 45% in the Hispanic-Black schools, and 23% in the white schools).

In terms of culturally relevant courses, however, there are striking differences between barrio and white school offerings. Culturally relevant courses, such as bilingual and ethnic studies programs, are almost non-existent in the white schools. While the relevance of offering minority culture courses in schools where the student body is entirely non-minority may be questioned, omission of such courses denies white students an opportunity to know the culture, language, and the life styles of other ethnic groups. On the other hand, when a student body is compound primarily of minority students culturally relevant courses are more commonly offered.

Among the three types of barrio schools, the Hispanic-Black schools offer the most culturally relevant course. Almost all of the Hispanic-Black schools offer bilingual programs and about two-thirds of them offer ethnic or Black studies and mother tongue courses. The percentages of culturally relevant courses offered in the other two types of barrio schools are much lower. For example, although 83% of the Hispanic schools offer bilingual programs, only 33% of them offer ethnic studies and mother tongue courses. This 33% is a surprisingly low figure, considering that as high as 80% of the students in these schools are Hispanic. This means only about one-third of the Hispanic schools pay attention to the ethnic heritage and the mother tongue of the students. In addition, interpreting this low 33% ethnic studies figure together with the high 83% bilingual program figure suggests that the bilingual programs offered in the Hispanic schools are mostly so-called language shift programs rather than cultural maintenance programs.

Overall, we find that curriculum are comparable in barrio and white schools in terms of applied and college preparatory courses, but the barrio schools curriculum is still far from being culturally relevant to the needs of Hispanic students. If this is so, the faulty school thesis argues that authoritarian rules are often imposed in the barrio schools in order to control the culturally alien Hispanic students.

Authoritarian Rules in Barrio Schools In examining the school rules, data in Table 5.8 suggests that barrio and white schools impose approximately the same rules on students. Both barrio and white schools have rules regarding student's dress and smoking. Both barrio and white schools close the school grounds at lunch and require hall passes. Both types of schools hold students responsible for property damage.

However, a higher incidence of student disciplinary problems is noted in the barrio schools than in the white schools. While school administrators may have under-reported the incidence of disciplinary problems in their schools, a large number of barrio schools report serious or moderate vandalism (60%), student use of drugs or alcohol (56%), robbery or theft (19%), and physical confict among students (10%). The above figures apply to Hispanic-white schools, but similiar figures are also reported for Hispanic and Hispanic-Black schools.

The above findings confirm the general impression of severe disciplinary problems in the barrio schools. In the place of authoritarian rules, there is an anarchy of social controls in the barrio schools. The barrio school administrators are unable to enforce school rules as effectively as the white school people. How this anarchy of school rules relates to student achievement will be studied in the next two sections.

Low Student Achievement in Barrio Schools The faulty barrio school thesis argues that the social characteristics of the barrio schools have produced a negative environment which inhibits Hispanic students from succeeding in school. The findings in Table 5.9 support this assertion. The barrio schools tend to have a much higher rate of students cutting classes, being absent from school, and dropping out than the white schools. Two-thirds of the Hispanic-Black school administrators judged cutting of classes as a moderate or serious problem. 95% judged student absenteeism as a moderate or serious problems. And 22% of the students entering the Hispanic-Black schools at grade 10 dropped out before graduation. Corresponding achievement figures for the white schools suggest a lower percentage of school administrators judging cutting of classes and absenteeism as moderate to serious problems (28% and 44% respectively), and a drop out rate of 7%.

It is not sufficient to merely report the low educational achievement of students in the barrio schools. We need to know more about the ways in which the social characteristics of the barrio schools are related to the student's low achievement.

Barrio School Characteristics and Absenteeism To determine the relationship between barrio school characteristics and student achievement, we have constructed an absenteeism scale by summing the responses to the questions regarding student cutting of class and absenteeism. We chose these variables because we think they can tell us about student achievement as much as the usual test scores.

Table 5.10 reports the correlation ratios. Before interpreting the findings, however, we want to caution the reader about our small sample size. There are only 18 Hispanic-Black schools, 40 Hispanic schools, and 48 Hispanic-white schools in our sample. These small samples prevent us from performing multi-variate analyses such as multiple regression. Thus the figures in Table 5.10 are merely simple correlations without controlling for any other variables.

In Table 5.10 we need to examine not only the magnitude but also the sign of the sign of the correlation ratio. Magnitude shows the size of the relationship and the sign of the ratio shows the direction of the impact of the school characteristics. A negative sign suggests a lower probability of absenteeism and cutting of class and thus represents a contribution toward educational achievement. A positive sign suggests a higher tendency toward absenteeism and thus should be avoided.

Impact of variables related to ethnic segregation vary across different types of barrio schools. In Hispanic schools, an increase in the percentage of Hispanic teachers is strongly related to lower absenteeism (-.563). In Hispanic-Black schools, increases in the percentages of both Hispanic teachers (-4.95) and Black teachers (-.365) are strongly related to lower absenteeism. In addition, an increase in the percentage of white teachers is related to an increase in absenteeism in the Hispanic schools (.490) and Hispanic-Black schools (.540). These correlations support the ethnic literature's assertion that Hispanic teachers may be more sympathetic than white teachers to Hispanic students.

We run correlation analyses for the rest of the school characteristics variables, but we only report those which reveal interesting findings for the sake of simplicity. With respect to facility variables, number of books in the library is only weakly related to absenteeism in both the Hispanic schools and the Hispanic-Black schools. Only in white schools (-.279) and in Hispanic-white schools (-.534) is the size of the library strongly related to lower absenteeism. This finding suggest that the improvement of physical and learning facilities in the minority schools may not related to reducing absenteeism, as that in the white schools.

Regarding student-teacher ratios, the number of students per teacher is positively related to student absenteeism, suggesting that less teacher attention may be related to students' tendency to cut classes and be absent from school. This is an expected observation; what is unexpected is that this high correlation between student-teacher ratio and student absenteeism is uniformly observed across all the three types of barrio schools and white schools. Thus, regardless of a school's ethnic composition, reducing the student-teacher ratio might be an effective way to lower absenteeism.

The minority culture curriculum variable also lowers the absenteeism rate across the barrio schools. A strong correlation is noted between student absenteeism and lack of minority culture courses offered in the three types of barrio schools. This finding provides support for the ethnic literature's assertion that a culturally relevant curriculum may arouse student interest in education and thus reduce the rate of absenteeism and cutting of classes.

Finally, there is supporting evidence for the assertion that students who have disciplinary problems are more likely to lose interest in school activities. When a barrio school has a high rate of student-student conflict or student-teacher conflict, there is also a high incidence in student absenteeism and cutting of class. The correlation ratios between disciplinary variables and absenteeism are highest for the Hispanic-Black schools, but the correlations in other barrio schools are also strong and in a direction that supports the relationship.

Conclusion and Discussion

The faulty barrio school thesis argues that ethnic segregation, under-financing, poor facilities, inferior teachers, irrelevant curriculum, and authoritarian rules are barrio school characteristics that have led to lower educational achievement among Hispanic students. The thrust of this thesis is that the school characteristics, not the students' cultural background, produce Hispanic student failure. In light of the institutional changes of the 1960s and the 1970s, barrio school characteristics may have changed and thus might have a different impact on student achievement.

From our analyses of the school file from the HS&B data set, we find that ethnic segregation persists in the barrio schools; that some of the barrio schools have improved their financial position as a result of participation in federal programs; that many barrio schools have upgraded their physical facilities to include modern learning equipment; that barrio teachers are technically qualified to teach but have little committment to do so; that the barrio schools offer a curriculum that is strong in technical instruction but weak in cultural sensitively; and that barrio schools have a high incidence of vandalism, robbery, drug usage, physical conflicts, and rape. We also find that student achievement in the barrio schools is still lower than student achievement in white schools, especially in terms of the rates of student cutting classes, being absent, and dropping out.

In order to study how the barrio school characteristics are related to student achievement, our simple correlation analyses suggest that large student-teacher ratios, lack of ethnic programs, and prevalence of disciplinary problems are positively related to student cutting of classes and absenteeism. Physical facilities, such as library size, has little correlation with student absenteeism, but the presence of a large percentage of Hispanic teachers is negatively related to student absenteeism.

Overall, it seems that the institutional changes of the 1960s and 1970s strengthened school financial conditions, upgraded physical facilities, recruited technically qualified teachers, offered a technical curriculum, and weakened authoritarianism in the barrio schools. But many of the old barrio school characteristics still prevail in the 1980s, such as ethnic segregation, culturally insensitive curriculum, uncommitted teaching, and serious student disciplinary problems. What is problematic with the institutional changes of the 1960s is that what they have changed, such as library resources and higher teacher technical qualifications, may not be positively related to student achievement. Further, the characteristics that the programs of the 1970s have failed to change, such as ethnic segregation and culturally insensitive teachers, have a strong impact on student achievement.

In summary, despite the improvements due to institutional changes of the 1960s and 1970s, the faulty barrio school thesis is largely substantiated by our findings in the 1980s: Hispanic students still cut class, are absent from, and drop out of school as a result of the negative social environment in the barrio schools.

The next chapter will provide another angle to examine the negative social environment in school by studying teacher's biases toward Hispanic students.

Appendix

The way to calcuate the figures in Table 5.2 is as follows. The Hispanic student figure is derived first by multiplying the total number of the high school membership varible by the percentage of Hispanic student variable. Once we get the actual number of Hispanic students in each school, we can sum it over all the public schools to get the total number of Hispanic students in the public schools. The figures on the Black and White students, and those on the teachers, are derived in a similiar way. Two cautions, however, should be mentioned here. First, the School Codebood (NORC, 1981) points out that a few administrators may add the percentages of ethnic student incorrectly, thus the sum of the percentage of white, Black, Asian, Indian, and other students may not be equal to 100. We have looked into this fact by summing up the percentages of all the students in the high density ethnic schools. Almost all the schools report this total percentage figure in a range from 95% to ???*r?rle?
? ?MM?%n the Hispanic-black schools and the Black schools have the total percentage as low as 90 and as high as 110. Consequently, it seems that the error of suming up percentages should substantially affect the population estimates in Table 5.2. Second, there may be a problem of underestimating the Hispanic student population in the HS&B data set. We therefore compared our figures with those given by Brown et. al. in 1981, entitled "The Condition of Education for

Hispanic Americans", published by the National Center for Education STatistics. Brown et. al. only provide figures on public elementary and secondary schools, which are 2,807,000 Hispanic and 33,229,000 white students in grades 1-12. Since the schools in the HS&B sample cover grades 10-12, multipling Brown's national estimates by a quarter gives 727,000 Hispanic and 8,307,000 white high school students. These two national estimates, when compared to our own (634,000 Hispanic students and 8,623,000 white students, shown in Table 5.2) show that there may be a possibility of underestimating of Hispanic students in the HS&B sample. However, the above comparison is only suggestive because the definition of Hispanic students in the two data sets may be different, because of the higher drop out rate of Hispanic students, and because of the growth of Hispanic population through migration between 1976 and 1980.

Table 5.1. Types of School and their characteristics

	Hispanic	Hispanic Black	Hispanic White	White	Black	All Public
Definition	50%+ Hispanic 30%- White 30%- Black	30%+ Hispanic 30%- White 30%- Black	30%+ Hispanic 30%- White 30%- Black	98%+ White	70%+ Black	
Sample N	40	18	48	198	54	866
Weighted population estimate	171	79	290	6,251	799	16,042
% of all public school	1%	.5%	2%	39%	5%	100%
Total student membership ($\bar{x}$)	1,191	1,503	803*	513	911	758*
Number of handicapped student ($\bar{x}$)	29*	52	42*	20*	34*	29*
% of student classified as disadvantage ($\bar{x}$)	49%	68%	33%	10%	60%	17%
court desegregation in effect % yes	15%	6%	14%	2%	58%	12%
% of student bused in for racial balance ($\bar{x}$)	1%*	1%*	1%*	0%	2%*	1%*
% of Hispanic student ($\bar{x}$)	80	49	48	1	2*	5*
% of Hispanic teachers ($\bar{x}$)	46	16	13	1	1*	2*
% of Black students ($\bar{x}$)	2*	40	5	0*	91	12*
% of Black teachers ($\bar{x}$)	2*	19	1*	0*	59	7*
% of White students ($\bar{x}$)	16	11	46	99	8*	82
% of White teachers ($\bar{x}$)	52	65	86	100	40	91
% of students from non-English home ($\bar{x}$)	49	45	34	1*	1*	4*
% of teachers living within five miles of school ($\bar{x}$)	41	14*	48	51	32	45
Region (%)						
North	2%	90%	4%	78%	21%	51%
South	3	4	1	10	44	17
West	95	6	95	13	36	32

*The mean is less than its standard deviation.

BEST COPY AVAILABLE

Table 5.2. An Estimation of Ethnic Segregation in the U.S. Public Schools.

	Hispanic	Hispanic Black	Hispanic White	White	Black	All Public
Number of students						
Hispanic	144,000	55,000	90,000	31,000	16,000	634,000
Black	7,000	51,000	8,000	10,000	591,000	1,639,000
White	24,000	11,000	95,000	3,017,000	44,000	8,623,000
Number of Teachers						
Hispanic	3,000	600	2,000	2,000	600	14,000
Black	300	700	200	600	20,000	50,000
White	5,000	3,000	9,000	184,000	16,000	562,000
% of Public Schools	1%	0.5%	2%	39%	5%	100% (N=16,042)
% of certain type of student in that type of School						
Hispanic students	23%	9%	14%	5%	3%	100% (N=634,000)
Black students	0%	3%	1%	1%	36%	100% (N=1,639,000)
White students	0%	0%	1%	35%	1%	100% (N=8,623,000)
% of certain type of teacher in that type of school						
Hispanic teachers	21%	4%	14%	14%	4%	100% (N=14,000)
Black teachers	0%	1%	0%	1%	40%	100% (N=50,000)
White teachers	1%	0.5%	2%	33%	3%	100% (N=562,000)

---

*Appendix I describes how the figures in this table are derived from the HS&B data set.

Table 5.3. Ethnic Composition Within the Schools and Asministrators Attitudes Towards the Parents

Administrators' attitudes	Hispanic	Hispanic Black	Hispanic White	White	Black	All Public
Parent lack of interest in						
student progress (%)						
serious	29%	49%	17%	7%	22%	12%
moderate	35	38	47	38	57	42
minor	36	12	36	52	20	42
not at all	0	1	1	4	1	4
Parent lack interests in						
school matter (%)						
serious	31%	48%	18%	7%	25%	11%
moderate	29	41	51	36	58	42
minor	41	11	31	45	17	39
not at all	0	0	0	12	0	8

Table 5.4. School Finance and Participation in Federal Programs

	Hispanic	Hispanic Black	Hispanic White	White	Black	All Public
District per pupil expenditure (x)	$1,663	$2,009	$1,559	$1,648	$1,420	$1,618
High School per pupil expenditure (x)	$1,340	$1,903	$2,015	$1,802	$1,292	$1,709
Federal Program (% participate)						
ESEA Title I (economic disadvantage)	84	100	81	74	59	70
ESEA Title IV-B (library)	80	93	77	92	86	87
ESEA Title IV-C (education innovation)	44	24	38	37	21	38
ESEA Title IV-D (support centers)	26	53	25	17	37	24
ESEA Title VII (bilingual education)	75	98	49	4	12	13
ESEA Title IX (ethnic heritage studies)	18	14	20	5	13	8
Indian Education Act	13	0	12	2	5	9
Emergency school aid act (desegregation)	28	14	7	0	22	8
School assist in federal affected areas	51	55	33	20	23	22
Comprehensive employment & training act	72	96	71	76	87	77

Table 5.5. Facilities

	Hispanic	Hispanic Black	Hispanic White	White	Black	All Public
# of volumes in library	16,521	13,092	10,536	8,672	11,793	9235
# of volumes in library per student	12	11	18	21	18	20
% yes to facilities below						
indoor lounge for student	47	5	22	19	19	19
departmental office	29	67	25	26	40	35
student cafeteria	98	98	81	90	97	92
child or nursery care	13	4	6	7	10	10
career information center	59	71	75	79	66	79
occupational training center	15	38	14	22	22	24
media production facilities	32	68	28	39	61	42
subject area resources center	11	8	12	12	20	13
teaching resources for teacher	17	40	28	19	19	26
remedial read/mathematics laboratory	60	100	56	46	72	57
area vocational school available	54	65	50	63	56	66
1 or more counselors	85	100	82	86	100	90
1 or more curriculum specialist	24	46	13	10	18	15
1 or more remedial specialist	62	92	73	61	64	66
1 or more librarian/media specialist	92	100	74	94	96	94
1 or more psychologist	15	22	27	30	18	28
1 or more teaching aids	83	100	86	54	86	64
1 or more security guards	43	100	16	6	47	12

Table 5.6. Teachers

	Hispanic	Hispanic Black	Hispanic White	White	Black	All Public
# of teachers ($\bar{x}$)	59	83	39	32	48	35
# of teachers per student ($\bar{x}$)	17	20	15	14	17	15
% of teachers with M.A. or Ph.D. degree ($\bar{x}$)	23	70	31	37	42	38
% of teacher left, not death or retirement ($\bar{x}$)	11	3	13*	11*	7*	10*
% of teacher absent on an average day ($\bar{x}$)	4	6	3	3	4	3
% of teacher at school 10 years or more ($\bar{x}$)	30	36	29	38	25	35
First salary step B.A. degree $ ($\bar{x}$)	10,194	10,834	10,302	10,227	10,375	10,311
Teacher striked last 4 years (% Yes)	4	45	12	3	31	7
No union represent teacher (% Yes)	37	0	17	16	32	20
Teacher Absenteeism (%)						
serious	1%	3%	0%	0%	6%	1%
moderate	20%	43%	12%	16%	22%	17%
minor	70%	48%	38%	47%	61%	49%
not at all	10%	5%	50%	36%	11%	33%
Teacher Lack Commitment/ Motivation (%)						
serious	0%	3%	0%	0%	1%	1%
moderate	22%	29%	18%	13%	24%	15%
minor	56%	63%	69%	52%	60%	54%
not at all	22%	5%	14%	35%	15%	31%

---

*The mean is less than its standard deviation.

Table 5.7. Curriculum

	Hispanic	Hispanic Black	Hispanic White	White	Black	All Public
% YES of the following questions:						
Calculus taught	50	14	31	46	28	47
Chemistry taught	100	99	93	99	87	96
Economics taught	42	95	37	68	71	63
Geometry taught	84	100	90	98	92	97
Physics taught	83	67	77	97	69	90
Psychology taught	62	32	40	58	44	58
Trigonometry taught	82	88	72	81	52	77
3rd year Spanish taught	42	95	47	40	26	47
3rd year German taught	8	10	16	15	8	20
3rd year French taught	30	34	20	32	29	39
3rd year Russian taught	0	0	3	2	2	3
Automechanics taught	46	32	49	45	51	50
Driver training taught	99	45	99	96	78	90
Home Economics taught	99	59	100	100	90	97
Wood/mechanics shop taught	81	94	58	93	68	89
Ethnic or black studies taught	33	66	27	7	47	17
Bilingual Program offered	83	98	67	3	26	16
ESL not offered	35	3	35	95	92	84
Mother tongue not offered	66	40	87	100	96	95
Minority culture course not offered	56	30	54	99	88	94
College Board advance Placement courses	20	45	29	23	30	29
Program for gifted/talented	45	39	48	26	39	94

Table 5.8. School Rules and Disciplinary Problems

	Hispanic	Hispanic Black	Hispanic White	White	Black	All Public
% YES to the following rules:						
School ground closed at lunch	13	38	16	37	56	40
Student responsible for property damage	100	71	95	97	97	97
Hall passes required	97	100	93	87	82	84
No smoking rule	88	97	85	94	C	88
Rules about student's dress	57	17	56	45	71	51
Vandalism of school property (%)						
serious	6	3	14	3	3	3
moderate	33	57	12	21	22	22
minor	56	40	64	65	66	68
not at all	6	0	11	11	9	7
Robbery or theft (%)						
serious	1	3	13	0	1	2
moderate	33	16	26	11	19	17
minor	60	81	53	74	70	72
not at all	7	0	10	15	9	9
Student use of drugs or alcohol (%)						
serious	0	3	1	6	8	7
moderate	70	53	48	43	43	42
minor	30	44	41	47	32	47
not at all	0	0	0	4	16	4
Physical conflict among students(%)						
moderate	6	10	17	5	14	8
minor	80	88	73	60	78	68
not at all	13	2	11	35	8	24
Conflict between student/teacher (%)						
moderate	1	9	5	6	20	7
minor	85	23	62	62	76	70
not at all	13	67	33	32	4	23
Rape (%)						
moderate	0	0	3	0	0	0
minor	11	30	6	2	9	5
not at all	89	70	91	98	91	95

BEST COPY AVAILABLE

Table 5.9. Student Achievements

	Hispanic	Hispanic Black	Hispanic White	White	Black	All Public
Average attendance rate ($\bar{x}$)	92	77	90	93	87	92
% of 78-79 class in regular college ($\bar{x}$)	37	39	40	38	33	38
% of student entering grade 10 who drop out later	14	22	14	7	11*	9*
% of 10th grade taking remedial reading classes ($\bar{x}$)	14*	41	21*	6*	23	10*
remedial Math classes ($\bar{x}$)	14*	39	21*	4*	27	10*
% YES to minimum competency test to graduate ($\bar{x}$)	23	64	42	11	28	18
% YES to remedial program for minimum competency test failure ($\bar{x}$)	35	61	43	13	31	25
Student Absenteeism (%)						
serious	18	27	35	3	40	11
moderate	64	69	46	53	46	41
minor	18	5	19	8	52	39
not at all	0	0	0	5	0	4
Student Cutting Classes (%)						
serious	15	28	21	1	19	6
moderate	32	38	24	27	52	32
minor	52	34	47	54	27	50
not at all	0	0	7	18	3	12

*The mean is less than its standard deviation.

Table 5.10. Correlation Ratios Between School Characteristics and Absenteeism/Cutting Classes

School Characteristics	Hispanics	Hispanic Black	Hispanic White	White	Black	All Public
% of Hispanic faculty	-.563	-.495	.126	*	*	.093
% of Black faculty	*	-.365	*	*	-.189	.192
% of white faculty	.490	.540	-.163	*	.165	-.219
Library	.106	-.133	-.534	-.279	.008	-.293
# of students per teacher	.601	.394	.410	.403	.051	.459
Minority culture not offered	.301	.678	.220	.072	.201	.196
Psychical conflict among student	.352	.478	.504	.304	.339	.346
Conflict student/teacher	-.039	.729	.231	.235	.253	.310
Robbery	.470	.603	.136	.361	.601	.307
Vandalism	.339	.660	.611	.417	.620	.327
Student use of drugs	.034	.648	.414	.413	.282	.332

*Correlations cannot be reported because of small variation in the school characteristic variables.

References

Bloom, Benjamin, Allison Davis, and Robert Hess
1965 Compensatory Education for Cultural Deprivation. New York: Hot, Reinhart and Winston.

Carter, Thomas P.
1970 Mexican Americans in School: A History of Educational Neglect. New York: College Entrance Examination Board.

Carter, Thomas P. and Roberto D. Segura
1979 Mexican Americans in School: A Decade of Change. New York: College Entrance Examination Board.

Cicourel, Aaron V., and John I. Kitsuse
1963 The Education Decision-Makers: An Advanced Study in Sociology. Indianapolis: Bobbs-Merrill Co.

Gordon, Edmund W., and Doxey A. Wilkerson
1966 Compensatory Education for the Disadvantaged Programs and Practices: Preschool through College. New York: College Entrance Examination Board.

Heller, Celia
1966 Mexican-American Youth: Forgotten Youth at the Crossroads. New York: Random House.

National Opinion Research Center (NORC)
1980a High School and Beyond: Information for Users. Base Year 1980. Report to the National Center for Education Statitics under contract #300-78-0208. Chicago: National Opinion Research Center.

1981 High School and Beyond: School Questionaire Codebook. Version I. Report to the National Center for Education Statistics under contract #300-78-0208 by the National Opinion Research Center.

Peng, Samuel et. al.
1981 High School and Beyond: A National Longitudinal Study for the 1980s. A Capsule Description of the High School Students. Washington, D.C.: National Center for Education Statistics.

Riessman, Frank
1962 The Culturally Deprived Child. New York: Harper and Row.

So, Alvin Y.
1983 "The High School and Beyond data set: its relevance for biligual

BEST COPY AVAILABLE

educational researchers." The Journal of National Association for Bilingual Education, in press.

BEST COPY AVAILABLE

Chapter 6: Teacher's Ethnicity and Hispanic Students: An Exploratory Study of the Teacher File in the National High School and Beyond Data Set

Since the mid 1960s, the Hispanic and Black research literature have seen an upsurge in the study of teacher-student relationships. Such research activities have contributed to our understanding of Anglo teacher's biases toward Hispanic students, and social factors related to such biases, as well as the development of a conceptual framework to sudy the labeling process. First of all, the literature has provided research evidence on the negative treatments of minority students by Anglo teachers. Parsons'(1965) ethnographic project may be the first systematic study to call attention to Anglo teacher biases. After sitting in on numerous classes in a high density Hispanic school near San Francisco, Parsons reported extensive preferential treatment towards Anglo students by Anglo teachers:

> "Anglo helpers aided the teachers; no Mexican American children were ever so designated. Frequently and systematically, teachers ignored Mexican American children's hands in favor of calling on Anglos. Often, while Mexican American children were reciting, teachers interrupted them to listen to an Anglo child. Teachers related very informally with Anglo children, inquiring about family affairs and the like; with Mexican American children they were strict. Teachers went out of their way to praise and encourage Anglo children while just as regularly criticizing Mexican American children (quoted by Weinberg, 1977: 224)."

Many works on Hispanic students have been carried out following Parson's lead, but the largest seems to be the United States Commission on Civil Rights's (1973) investigation of teacher-student interaction in 429 classrooms in 52 schools. Similiar to Parson's findings, this Commission reports that:

> "Teachers praise or encourage Anglo children 36 percent more than Mexican Americans. They use or build upon the contributions of Anglo pupils fully 40 percent more frequently than those of Chicano pupils. Combining all types of approving or accepting teacher behavior, the teachers respond positively to Anglos about 40 percent more than they do to Chicano students. Teachers also direct questions to Anglo students 21 percent more often than they direct them to Mexican American. In addition, Mexican American pupils receive significantly less overall attention from the teacher ... The total picture that emerges from this study of classroom interaction is one in which Mexican American students are ignored compared to their Anglo counterparts (U.S. Comission on Civil Rights, 1973:43)."

In addition to the documentation of teacher biases toward Hispanic students, the literature has investigated the social factors relating to teacher's negative treatment. Laosa's (1977) extensive review of literature contributes to our understanding of this issue by pointing out that student's ethnicity, socioeconomic status, and language background are major determinants of teacher's expectations and evaluations. Laosa furthermore suggests that Hispanic students suffer from teacher's negative treatment because they are from ethnic minority backgrounds, have low socioeconomic status, and speak non-standard English. Rist's (1970) study of ghetto education also shows that teacher's initial expectations regarding the academic potential of a student are based on racial and socioeconomic facts about the student.

Furthermore, the literature has developed a perspective for analyzing the influence of labeling and differential treatment on minority students. This perspective has been called the self-fulling prophecy (Rist, 1970), the Pygmalion effect (Rosenthal and Jacobson, 1968), and the labelling theory (Rist, 1977), and it generally refers to the three phases in the development of teacher negative treatment and subsequent student responses: (1) The starting point is the assignment of labels, e.g. "good" student or "bad" student. (2) Once a label has been assigned to a student, differential treatments from the teacher follow. For example, a teacher tends to talk to a "good" student more than to a "bad" student, praise a "good" student more than a "bad" one, and point out the wrongdoing of a "bad" student more often than that of a "good" one. (3) Given such labeling and differential treatment, the student tends to accept the teacher's label and behave according to the teacher's expectation which is reflected in differential treatment. For example, a student will avoid talking to a teacher if it is known that the teacher does not think highly of him. These three phases of label assignment, differential treatment, and student conformity to teacher expectation continue, being reinforced each year as the student proceeds through school. The outcome is that the teacher has created the very person he or she perceives and labels the student to be.

Despite of these significant contributions to our understanding of teacher-student relationships, there are still many unresolved issues.

For example, one area in need of study relates to differences in treatment of Hispanic students by Hispanic teachers. It is important to study whether Hispanic teachers, like the Anglo teachers, are biased toward Hispanic students. In other words, do Hispanic teachers make better teachers for Hispanic students? Many researchers evade these questions by claiming that "the issue of teacher race and student achievement is unrelated to the general problem of employing more minority teachers" (Weinberg, 1977:238). Others "suspect that Mexican American teachers are not unlike their Anglo and black peers... their Mexican ancestry may be of less consequence than their ability to understand, accept, empathize with, and constructively cope with individual and cultural diversity" (Carter and Segura, 1979:217). Still others hope that "the Chicano teacher is an excellent role model of success: his presence in the school seems to encourage Mexican American children...his ability to speak Spanish; and his abilty to understand and give special counsel to many Mexican American students" (Colorado Commission on spanish-Surnamed Citizens, 1966:62). But "since there are no studies to give the answers" (Carter and Segura, 1979:217), we do not know the relationship between Hispanic teachers and Hispanic students.

In addition, little study has been carried out on the potential positive impact of labeling. While it is true that Anglo teachers generally are biased against Hispanic students, not every Anglo teacher is biased against every Hispanic student. It would therefore be interesting to study the impact of labeling on those Hispanic students who have been assigned "good" student labels by Anglo teachers. Would Anglo teachers treat "good" Hispanic students the same way as they treat "good" Anglo students? If the answer to the above question is "yes", then ethnic discrimination stops at the first stage of the labeling process. In other words, student's ethnicity may influence assignment of a "good" or "bad" label; but once the label has been assigned, the teacher will treat "good" students the same way regardless of whether they are Hispanic or Anglo. Such a finding would have important policy implications because it shows that what really matters is the initial labelings. Teacher's biases may be altered by informing them of the harmful consequences of the initial labeling. On the other hand, if Anglo teachers treat "good" Hispanic and "good" Anglo students differently, then ethnic discrimination goes deeper than the initial labeling. If an Anglo teacher still confers negative treatment on a Hispanic student, even though it is known he/she is a "good" student, then the apparent deep-seated racism may not be amenable to any simple solution.

There has also been limited study of the effectiveness of teacher labeling. It is assumed that after a label has been assigned and reinforced by a teacher's differential treatment, the student will conform to the expectation implied by the label and the treatment. But it is not clear whether the labels conferred by Hispanic teachers on Hispanic students are as effective in producing conformity in students as labels conferred by Anglo teachers on Hispanic students. For example, if a Hispanic student is labeled as "good" student by a Hispanic teacher, will this student value the label as much as if it is conferred by an Anglo teacher? A positive answer to this question would lend support to the recruitment of Hispanic teachers. On the other hand, if "good" labeling by Hispanic teachers is shown to be unrelated to Hispanic student's perception, then it may disqualify the claim that recruitment of Hispanic teachers can improve the educational achievement of Hispanic students.

This chapter provide another angle to highlight the negative social environment in school by examining some of the neglected issues in the teacher-student literature. In particular, we want to study the labeling by Hispanic teachers, labeling of "good" Hispanic students, and effectiveness of teacher labeling. For this purpose, we shall utilize the data collected in the teacher file of the High School and Beyond study.

The High School and Beyond Data Set

The High School and Beyond (HS&B) study was funded by the National Center for Education Statistics (NCES) and conducted by the National Opinion Research Center (NORC). The study was the first wave of a national longitudinal study of cohorts of high school students in the United States in 1980. Over 30,000 sophomores and 28,000 seniors enrolled in 1,015 public and private high schools across the nation participated in this study. The HS&B sample represents the nation's 10th and 12th grade populations, totaling about 3.8 million sophomores and 3 million seniors in more than 21,000 schools (Peng et. al., 1981; NORC, 1980; So, 1983).

The HS&B study collected data from many different sources. Students first filled out a lengthy questionaire with respect to social background characteristics (e.g. ethnicity) as well as school variables (e.g. educational aspiration). If a student indicated a second language experience, he was then asked to complete another set of language questions, including English and other language proficiency. In addition, each teacher in the participating 1,015 schools was asked to fill out a short questionaire concerning those HS&B students whom they had taught during the 1979-80 school year. The answers to the three questionaires were then stored in three different computer files -- the student file, the language file, and the teacher file.

Our study of teacher-student relationships relies mostly on the information provided in the teacher file. A total of 67,000 packets were distributed to teachers. About one week after initial distribution, a reminder note was sent to each teacher to mail the questionaire directly back to NORC. This follow-up procedure resulted in return of 19,287 sophomore forms and 19,337 senior forms (NCES, 1982). The forms sent to the teachers listed the names of all HS&B sophomores and seniors who were attending that particular school. For each name, teachers were directed to indicate whether they had had the student in class since September 1979. Only responses indicating that a teacher had students in class were analyzed. Teachers were then asked to answer "yes", "no", or "don't know" to the following seven questions about each designated student:

1. will probably go to college
2. has talked with me outside of class about school work or plans
3. is working up to potential
4. seems popular with others
5. seems to dislike school
6. has the kind of self-discipline to hold a job
7. has or may have a physical or emotional handicap that is affecting his or her school work

The sophomore (but not the senior) form further included four questions concerning the teacher: subjects currently taught, maximum and minimum proportion of class time devoted to maintaining order, teacher's sex and race.

A common student identification number in the teacher file enabled us to locate the same student record in the student and in the language files. Although only 58,000 students were included in the HS&B data set, more than 143,000 teacher comments were included in the teacher file because a student can receive more than one teacher comment and a teacher can comment on more than one student. Fortunately, the table look-up procedure in the new SPSSX computer program permits the merging of the teacher file, the student file, and the langauge file into one teacher-student-language file.

However, the HS&B data set also imposes certain limitation on the analyses of the process of labeling by Hispanic teachers on Hispanic students. First, there is a reduction of sample size to 4,975 teacher observations. Since our focus is on Hispanics and Anglos, only these two ethnic groups are included in the analyses. The analyses is also confined to the study of sophomores because the information on teacher's ethnicity is available only in the sophomore teacher file. The sample size is further reduced by the large percentage of missing cases (over 30%) on teacher ethnicity. Furthermore, our interest in studying the factor of limited English proficiency dictates analyses of only those cases included in the language file.

Another limitation of the teacher file is its cross-sectional nature. A good study of the labeling process will require a longitudinal study over a period of at least several years, starting from pre-schooling to elementary school or even to high school. Thus the teacher file does not contain good information to distinguish the initial labeling from differential treatments.

Facing these sample constraints, our findings must be treated as tentative. Indeed, our aim of analyzing the data in the HS&B data set is not to provide a definitive statement on the labeling process of Hispanic students. Instead, we try to make the best out of the massive information on teacher-student relationships from the HS&B data set. We think that the rich information on Hispanic students and teachers can help to shed light on labeling by Hispanic teachers and the effectiveness of such labeling. If our findings cannot be conclusive, we hope they will be suggestive and opening up new frontiers in which future research can be directed to.

Differential Treatment By Anglo And Hispanic Teachers

Our findings, as shown in Table 6.1, suggest that Anglo teachers tend to have higher expectations of Anglo students than they have of Hispanic students. This finding is in agreement with results reported in the literature. Anglo teachers comment that over 55% of Anglo students "will probably go to college", but only 27% of Hispanic students who do not speak perfect English and 39% of Hispanic students who speak perfect English received the same comment. Anglo students also talk to Anglo teachers more often outside class than Hispanic students do. 32 percent of Anglo students talked to Anglo teachers outside of class about school work or plans, but only 20 percent of Hispanic students who do not speak perfect English, and 26 percent of Hispanic students who speak perfect English interacted with Anglo teachers in this way. Other teacher comments are less differentiated across student's ethnicity, but when we sum up the good evaluation on all the seven questions listed in Table 6.1, it is found out that Anglo students receive more good evaluations on seven question items than either group of Hispanic students: Thirty-two percent of Anglo students, 16 percent of Hispanic students who do not speak perfect English, and 21 percent of Hispanic students who speak perfect English received positive teacher comments. These findings suggest that the language background of Hispanic students is a factor in Anglo teacher labeling, although the strength of relationship is not as strong as the literature suggested.

Our goal, however, is not to reiterate the literature's prevailing findings. Instead, we are interested in the relative effectiveness of Hispanic and Anglo teachers for Hispanic students. Comments of Hispanic teachers regarding college expectations for Hispanic and Anglo students suggests relatively equal expectations across student groups. The percentage of students who talk to a Hispanic teacher outside class is the same for Anglo students and for Hispanic students. Other teacher comments are again almost even across the two Hispanic groups and the Anglo groups. Overall responses on all seven questions suggest that Hispanic student receive more positive comments from Hispanic teachers than do Anglo students. The above findings suggest that Hispanic teachers offer more encouragement to Hispanic students than Anglo teachers do. On two items, college expectation and outside class interaction, Hispanic teachers make almost twice as many postive comments about Hispanic students as do Anglo teachers. Thus although Hispanic students seems to receive differential treatments from Anglo and Hispanic teachers, the asserted unfavorable treatment of Hispanic students by Hispanic teachers is not supported by our analysis.

Another interesting finding in Table 6.1 about Hispanic teachers is that they give out more or less the same comments to the two Hispanic language groups. It seems for Hispanic teachers, the language background of Hispanic teachers is not a factor for the labeling process. Maybe this is a result that Hispanic teachers very often understand Spanish and thus sympathetic to the language minority background of Hispanic students.

Good Labeling

Our next task is to study the impact of good labeling. Our goal is to investigate whether Hispanic students and Anglo students will receive the same positive comments from Anglo teachers who think those students may go to college. As shown in Table 6.2, all students who are judged to be college materials recieve similiar positive comments from Anglo teachers. It seems that once the "college-going" label is assigned to Hispanic students, then Anglo teachers talk to them outside class, see them as self-disciplined, perceive them as popular students, and avoid labeling them as physically and emotionally handicapped to the same degree as the Anglo teachers judge Anglo college-going students in these categories. Similiarly, if Anglo teachers think a Hispanic student is not going to college, the teachers treat that student in the same way as they treat Anglo non-college-going students. It seems that what matters is the crucial label of whether or not is going to college. Once this label has been assigned to a student, then Anglo teachers treat all students the same way regardless of the student's ethnicity and language background.

The impact of good labeling can also be observed for Hispanic teachers. Once the "college-going" label is assigned to Hispanic students, the Hispanic teacher treat them in the same way as the Anglo teachers treat their students. Table 6.2 presents the findings only for Hispanic teachers; too few Hispanic teacher observations on Anglo students were available to include in the analysis. In addition, we have collapsed the two Hispanic language groups together both for the above reason and for the fact that Hispanic student background is not a factor of Hispanic teacher treatment.

Having made the above observations, it seems appropriate to remind the readers again the limitation of the HS&B data set. The teacher file does not include information to distinguish the initial labeling from differential treatments, so here we are exercising a bold assertion in suggesting that college expectation is the initial label while other teacher responses are differential treatments. However, the interesting findings in Table 6.2 do suggest we should pay more attention to the studying of good labeling on Hispanic students.

Effectiveness of Labeling

Our third task is to study the effectiveness of teacher labeling. Our goal is to investigate whether the labeling of Hispanic teachers is an effective as that of Anglo teachers in influencing Hispanic students. We can shed some light on this issue by crosstabulating teacher expectation with student aspiration. Thus teacher's comment regarding the probability of a student going to college were crossed with the lowest level of school student's reported being satisfied with. Since other variables, such as parental aspiration, are not controlled, the crosstabulations reported in Table 6.3 are only suggestive. In general, the data suggest four different kinds of student reponses to teacher expectation. The first is an "aspiring conformist": A student accepts the good label assigned by the teacher and his/her educational aspirations for either vocational school or college match the teacher's "will go to college" comment. The second type is a "non-aspiring conformist": The teacher thinks the student will not go to college, and the student's aspirations match this judgement. The third type is an "aspiring non-conformist": The teacher thinks the student will not go to college, but the student thinks otherwise and aspires to continue education beyond high school. The fourth type is a "non-aspiring non-conformist": The teacher thinks the student will go to college, but the student is satisfied with a high school education. The findings in Table 6.3 do not show much difference between Hispanic teachers and Anglo teachers for any type of student. Our findings therefore suggest that labeling by Hispanic teachers may be as effective as labeling by Anglo teachers.

Conclusion

From the data in the teacher file of the HS&B data set, our analyses suggest that: (1) Anglo teachers have a more positive expectation, evaluation, and treatment of Anglo students than of Hispanic students, while Hispanic teachers tend to treat Anglo and Hispanic students the same; (2) Once the label of going to college has been assigned to a student, then Anglo teachers treat all students the same way regardless of the student's ethnicity and language background; (3) labeling by Hispanic teachers may have the same consequences for Hispanic students as labeling by Anglo teachers.

These are important findings and they have important implications. However, the limitations imposed by the HS&B data set did not permit us to over-generalize our findings. Thus the above findings must be treated as tentative and as future agenda for researchers who are intersted in studying Hispanic teachers and students. In this respect, it seems useful to point out that if our observations on Hispanic teachers are supported by future researches, they will point to the massive recruitment of Hispanic teachers into high density Hispanic schools as an effective means of upgrading education for Hispanic students because it is suggested here that Hispanic teachers tend to have higher expectations and more interactions outside class as well as making more positive comments about Hispanic students than do Anglo teachers. Similiarly, if our observations on the good labeling by Anglo teachers are supported by future research, then they will point to a solution of overcoming Anglo teacher's biases toward Hispanic student, namely, informing Anglo teachers about the harmful consequences of the initial labelings.

To recall, this and the last chapter examines the impact of negative school social environment on Hispanic education achievement. According to the Structuralist perspective, bilingual education program provides the key to reform this negative social environment. In the next chapter, we shall examine the impact of language of instruction on educational achievement -- a topic which brings us closer to the controversial issues relating to Hispanic education in the 1980s.

Table 6.1. Teacher Ethnicity and the Labeling of Hispanic Students

	Anglo Teacher*			Hispanic Teacher		
% yes to the following teacher comments	Hispanic Student O.K. English	Hispanic Student Good English	Anglo Student Good English	Hispanic Student O.K. English	Hispanic Student Good English	Anglo Student Good English
1. This student will probably go to college.	27%	39%	55%	60%	61%	65%
2. This student has talked to me outside of class about school work or plans.	20%	26%	30%	42%	37%	39%
3. This student has the kind of self-discipline to hold a job.	68%	68%	75%	76%	74%	72%
4. This student has or may have a physical and emotional handicap that is affecting his/her school work.	7%	9%	7%	5%	7%	0%
5. This student is working to potential.	53%	47%	55%	63%	59%	51%
6. This student seems to dislike school.	15%	18%	14%	7%	12%	17%
7. This student seems popular with others.	85%	61%	70%	76%	80%	84%
8. Receives good evaluations on all the above 7 questions.	16%	21%	32%	42%	36%	30%

*The sample Ns vary a little bit for each question because of the differences in missing cases. For the Anglo teachers answers to question 1 Ns are 567 for Hispanic o.k. English, 1,596 for Hispanic good English, 2,696 for Anglo good English. For the Hispanic teachers answers to question 1 Ns are 89 for Hispanic o.k. English, 184 for Hispanic good English, 43 for Anglo good English.

BEST COPY AVAILABLE

Table 6.2. The Labeling of Good Hispanic Students

	Anglo Teacher									Hispanic Teacher		
	Hispanic Student O.K. English			Hispanic Student Good English			Anglo Student Good English			Hispanic Student O.K. and Good English		
	Will go to college			Will go to college			Will go to college			Will go to college		
% yes to the following teacher comments	Yes	Don't know	No	Yes	Don't Know	No	Yes	Don't know	No	Yes	Don't know	No
1. Student has talked to me outside of class about school work or plans.	32%	16%	16%	37%	18%	18%	38%	22%	19%	57%	23%	18%
2. Student has self-discipline to hold a job.	93%	68%	51%	89%	64%	46%	91%	66%	46%	92%	49%	40%
3. Student has physical or emotional handicap.	2%	2%	15%	5%	6%	14%	3%	6%	18%	3%	2%	18%
4. Student is working up to potential.	83%	47%	37%	68%	39%	29%	73%	41%	26%	79%	33%	30%
5. Student seems to dislike school.	2%	7%	29%	6%	11%	38%	5%	9%	40%	2%	2%	35%
6. Student seems popular with others.	88%	71%	67%	87%	70%	62%	84%	70%	59%	93%	64%	52%

BEST COPY AVAILABLE

Table 6.3. The Effectiveness of Teacher Labeling

	Anglo Teacher									Hispanic Teacher		
	Hispanic Student O.K. English Will go to college			Hispanic Student Good English Will go to college			Anglo Student Good English Will go to college			Hispanic Student O.K. & Good English Will go to college		
Student Educational Aspiration	Yes	O.K.	No	Yes	O.K.	No	Yes	O.K.	No	Yes	O.K.	No
High School or less	19%	45%	52%	24%	42%	52%	18%	43%	62%	26%	40%	59%
Beyond High School (vocational school, college and up)	82%	55%	48%	76%	58%	48%	83%	57%	39%	75%	60%	41%
%	101	100%	100	100	100	100	100	100%	101	101	100	100
(N)	(146)	(162)	(210)	(606)	(394)	(509)	(1458)	(527)	(616)	(832)	(35)	(56)

References

Carter, Thomas P. and Roberto D. Segura
1979 Mexican Americans in School: A Decade of Change. New York: College Entrance Examination Board

Colorado Commission on Spanish-Surnamed Citizens
1966 The Status of Spanish-surnamed Citizens in Colorado. Report to the Colorado General Assembly, Greeley, Colorado. January.

Laosa, Luis M.
1977 "Inequality in the classroom: Observational research on teacher-student inequality" Aztlan International Journal of Chicano Studies Research 8:51-67.

National Opinion Research Center (NORC)
1980 High School and Beyond. Information for Users. Base Year (1980) Version 1. A Report to the National Center for Education Statistics under contract #300-78-0208. Chicago, IL.:National Opinion Research Center.

National Center for Education Statistics (NCES)
1982 High School and Beyond User's Manual for Teacher Comment File. Prepare by the National Center for Education Statistics. Longitudinal Studies Branch.

Parsons, Theodore, W. Jr.
1965 Ethnic Clevage in a California School. Doctoral Dissertation. Stanford University.

Peng, S.S., Fetters, W.B., & Kilstad, A.J.
1981 High School and Beyond: A national longitudinal study for the 1980s. A capsule description of high school students. Washington D.C.: National Center for Education Statistics.

Rist, Ray C.
1970 "Student social class and teacher's expectations: The self-fulfilling prophecy in ghetto education." Harvard Education Review 40:411-450.

1977 "On understanding the processes of schooling: The contribution of labelling theory." Pp. 292-305 in Jerome Karabel and A.H. Halsey (ed.) Power and Ideology in Education. New York: Oxford University Press.

Rosenthal, Robert and Lenore Jacobson

1968 Pygmalion in the Classroom: Teacher Expectation and Pupils Intellectual Development. New York: Holt, Rinehart and Winston.

So, Alvin Y.
1983 "The high school and Beyond data set: Its relevance for bilingual education researchers." National Association of Bilingual Education Journal, vol. 7, forthcoming.

U.S. Commission on Civil Rights
1973 Teachers and Students: Differences in Teacher Interaction with Mexican and Anglo Students. Washington D.C.: U.S. Government Printing Office.

Weinberg, Meyer
1977 "Teachers and their students." Chapter 9 in Meyer Weinberg, Minority Students: A Research Appraisal. U.S. Dept. of Health, Education, and Welfare. Washington D.C.: U.S. Government Printing Office.

Part IV: Issues In The 1980s

Chapter 7: Impact of Language of Instruction on Educational Achievement

The purpose of this paper is to investigate the impact of the language of instruction on the educational achievement of Hispanic students. More specifically, it seeks to determine whether student achievement in high school is influenced by language environment in elementary school. This question has been at the center of much educational policy debate during the past several years. Proponents of bilingual education have suggested that the education of limited- or non-English speaking (LES/NES) students is enhanced if the home language is used for instruction while competence in English is being acquired. Others have suggested that using the home language for instruction impedes the acquisition of English and negatively influences school achievement.

Thus far, research on bilingual education has not produced a definitive answer to this important debate. Extant research has largely focused on theoretical typology construction or limited program evaluations. For example, while the theoretical works of Gaarder (1977). Mackey (1978), and Paulston (1975) have provided various ways of classifying bilingual education programs, their insightful theoretical frameworks have seldom been translated into empirical studies (Fishman, 1977). On the other hand, while there are many evaluation reports on bilingual programs, it is difficult to interpret the results of these studies in terms of their generalizability to the bilingual education programs across the country. Moreover, these program evaluations are often found to have serious methodological shortcomings (Baker & deKanter, 1981). Troike (1978) provided a partial list of evaluation shortcomings including:

- no control for subjects' socioeconomic status
- no control for initial language proficiency
- no baseline comparison data or control group
- inadequate sample
- insufficient data and/or statistics reported

In addition, evaluations rarely differentiate the differences in the medium of instruction in bilingual programs. Some programs may rely predominantly on the mother tongue, while others may rely predominantly on English. Still other programs may use English and the mother tongue equally in classroom instruction. Differences in the medium of instruction may play a crucial role in determining the success of a program. The result of all these research problems is a lack of methodologically sound empirical studies on the impact of bilingual education. Many researchers have repeatedly concluded that there is an absolute paucity of research on the impact of bilingual programs (Baker & deKanter, 1981; Rist, 1982;

Troike, 1978).

This paper attempts to shed some light on the question of the effectiveness of bilingual education by focusing attention on the influence of language or medium of instruction in elementary school on the high school reading and mathematics achievement of LES/NES Hispanic students. Evidence for our conclusions is based on analyses of data from the High School and Beyond National Survey conducted by the National Center for Education Statistics.

The High School and Beyond Data set

The High School and Beyond (HS&B) data set is the first phase of a national longitudinal study of 58,000 students who in 1980 were sophomores and seniors. The study was conducted under contract to the National Center for Education Statistics by the National Opinion Research Center (NORC). The HS&B included a nationally representative sample of sophomores and seniors, the data from which can be projected to the national population of students in these age groups. Of particular interest to this paper, the sample design included an oversampling of Hispanic students in order to ensure a comprehensive and reliable sample of this segment of the language minority population. The weighted sample represents approximately 6.8 million students in grades 10 and 12 in 1980 (NORC, 1980). A description of the utility of the HS&B data set for the study of language minority students was recently prepared by the National Center for Bilingual Research (So, 1982).

The HS&B included data collection at a number of levels. Students were asked to complete questionnaires detailing their school experiences and future plans. Students were also administered reading and math achievement tests. All tests were administered in English. Data collected from these instruments can provide partial answers to the question of the influence of classroom language environment on school achievement. These data include comprehensive descriptions of student background characteristics. In addition to ethnic and racial origin questions, a multi-part socioeconomic indicator was included. A composite socioeconomic status (SES) variable can be constructed which includes father's occupation, father's education, mother's education, family income, and a set of questions on resources in the home such as books, daily newspaper, cars, a dishwasher, and similar items.

The HS&B data also included information on the early language background of the students. If a student reported some non-English language experience either during childhood or at the time of the HS&B survey, a comprehensive set of questions was asked related to language experience and proficiency in both English and the mother tongue.[1] From these questions it could be determined if a student's mother tongue was a language other than English, if a child was required to enroll in English classes for non-English speakers, and if the language of instruction or medium of instruction at various grade levels was English, a mix of English and the mother tongue, or the mother tongue. Approximately one-fifth of the sample, or 11,303 students, completed the language questionnaire.

The present analysis of the HS&B data set narrows its focus to a particular segment of the available data. First, only Hispanic students were selected for analysis. While the students answering the language questions included students from European, Asian, and other backgrounds, the Hispanic population appears to have the most comprehensive experience with a home language other than English. Further, in order to ensure that the analysis only included students who were limited- or non-English speaking at school entry, our sample included only Hispanic students who indicated Spanish as their mother tongue and who were required to take English courses for non-English speakers in elementary school. This selection decision may increase the error of excluding some LES/NES Hispanic students, but the error is in the conservative direction by decreasing the risk of including students who were English proficient at school entry and would not require compensatory language services.

Next, students were divided into three classroom language experience groups based on their answer to a question inquiring about the language of instruction in grades 1 to 6. Students were asked, "Thinking about all the courses you had in grades 1-6, how much of the teaching was done in that language?" ("that language" refers to the language other than English). Students can be divided into three categories:

- all or almost all English
- evenly mixed English/Spanish
- all or almost all Spanish

Finally, only students educated in the United States were included in the analyses. Since this is a high school age sample, the sample also included many students who only received part of their education in the United States. A fair test of the impact of some aspects of U.S. schooling should focus only on students educated in the United States.

In summary, high school reading and math achievement were employed as criteria variables while socioeconomic status and elementary school language of instruction were employed as independent variables. The sample included Hispanic students who reported mother tongue as Spanish and were required to take English courses designed for non-English speakers. This represented 30,090 sophomores and seniors in the United States in 1981. Socioeconomic status (SES) was a composite variable including a variety of social indicators. SES for the sample ranges from low to high. Medium of instruction, or language of instruction in elementary school, was divided into three categories: All or almost all

English; mixed English/Spanish; and all or almost all Spanish. Population weights were used in the analysis and are reported here. Analysis of raw scores were also performed and essentially mirrored the results reported. Table 7.1 summarizes the sample characteristics.[2]

Results

Multiple regression techniques were employed in the analysis. A separate analysis for reading and math achievement scores was conducted. The means, standard deviations and correlations of the variables in the regression equation are presented in Appendix A.

Reading Achievement

Table 7.2 presents the regression equations and the predicted scores for the sample by SES and medium of instruction. The coefficient in the regression equation shows the unique effect of an independent variable on reading achievement when the effects of all other independent variables have been controlled. For instance, the -6.15 coefficient for the All-Spanish variable shows that students in this type of classroom scored 6.15 points in reading achievement below those in All-English classrooms, when the effects of other variables in the equation have been accounted for. On the other hand, the +2.33 coefficient for the Mixed classroom means that students in that type of classroom scored higher than those in All-English classrooms. In this light, we can roughly assert that students in Mixed classrooms did better on reading achievement than students in All-English classrooms, who, in turn, did better than the students in All-Spanish classrooms.

However, the large coefficient (-6.73) in the interaction term (All-Spanish.SES) indicates that the effect of medium of instruction on reading achievement might vary with different socioeconomic status. To test this hypothesis, we performed a statistical significance test using the statistics from the weighted sample and the degree of freedom from the unweighted sample N (see Coleman, 1981). We found that the interaction effect between SES and language of instruction is indeed significant at 0.01 level.

To look into this interaction effect we calculated the predicted reading scores from the 3 regression equations (Table 7.2). Column 8 in Table 7.2 reveals that the effect of medium of instruction is higher for the high SES group (12.9), but dwindles to almost nil (-0.6) for the low SES group. On the other hand, the effect of SES (column 4) is pretty strong for All-English and Mixed classrooms (13.6, 14.3), but was almost non-existent for All-Spanish classrooms (0.1).

This interaction effect between SES and language of instruction is vividly shown in Figure 7.1. The LES/NES students in Mixed classrooms, regardless of their SES background, performed better than LES/NES students in predominantly English classrooms. In general, students in mixed language classrooms scored about 2 points higher than those in predominantly English language classrooms. On the other hand, LES/NES students in predominantly Spanish language classrooms did not show any increase in reading achievement for a rise in SES background. LES/NES students in predominantly English language classrooms scored about 84.5 points at every SES level. Consequently, while the reading scores of students in predominantly Spanish language classrooms were about the same as those in predominantly English classrooms in the low SES group, the reading scores of the former group were about 6 points lower than those of the latter group in the medium SES category, and even lower than those in the high SES category.

Math Achievement

When we examined math achievement in Table 7.3, we found a different result from that for reading achievement. The positive, large coefficients of the classroom variables (+2.79, +8.32) showed that students in both All-Spanish and Mixed classrooms scored substantially higher in math achievement than those in All-English classrooms. But since the coefficient of the interaction terms was also pretty large (6.21, 5.03), we needed to see whether the interaction terms were significant or not.

Accordingly, we performed a statistical significance test on the interaction terms. We obtained a ratio of 2.67, which was just a little short of 2.99 to be significant at 0.05 level. Since we used a conservative degree of freedom (i.e., the sample N instead of the projected population N), we thought we should not be barred by this lack of statistical significance from looking into the different patterns of math achievement among the various SES groups and classroom environments.

Table 7.3 shows this interaction effect based on the predicted reading scores from the 3 regression equations. Column 4 in Table 7.3 reveals that the effect of SES on math achievement is almost nil for those in All-English classrooms, but is quite substantial for the students in the other two types of classrooms. On the other hand, the effect of language of instruction on math achievement varied with students in each SES group. The low SES students in All-English classrooms scored higher on math tests than the low SES students in All-Spanish classrooms, but the high SES students in All-English classrooms scored much lower than the high SES students in All-Spanish classrooms. This fact is vividly illustrated in Figure 7.2.

Discussion and Conclusions

At the beginning of this paper, it was asked whether student achievement in high school was influenced by language environment in elementary school. Using a national sample of Hispanic LES/NES students, the present analysis suggests that language of instruction in elementary school has a strong impact on a student's subsequent educational achievement.

For those LES/NES students in mixed language classrooms, it was found that their performance in reading and math achievement was superior to the performance of their peers with similar backgrounds in both predominantly English and predominantly Spanish classrooms. The findings here suggest that dual language learning enhances general linguistic abilities, as evidenced by higher reading scores. It may also be that classrooms employing both English and Spanish equally would enjoy the advantages of both languages and aid the acquisition of math skills as evidenced by higher math scores. Therefore, the above findings would support the notion that mixed-medium classrooms serve a compensatory function for LES/NES students to overcome their language disadvantages in educational achievement.

For those LES/NES students in predominantly English classrooms, their reading achievement scores were in the middle, but their math achievement scores were the lowest of the three groups. One might speculate that mathematics achievement requires rudimentary math concepts and skills. In addition, certain language skills are also required since mathematics problems are often embedded in language comprehension. Therefore, for LES/NES students, if the medium of instruction is primarily in English, then the acquisition of rudimentary mathematics concepts will be inhibited since LES/NES children may not have adequate English language skills to benefit from the instruction.

For those LES/NES students in predominantly Spanish classrooms, their reading achievement was the lowest of the three groups. This suggests that all-Spanish classroom instruction may have a debilitating effect on the reading achievement of LES/NES students. It seems that while total immersion in predominantly English classrooms was not conducive to high reading achievement, total immersion in predominantly Spanish classrooms was not beneficial either. With respect to math achievement, LES/NES students from low SES backgrounds in predominantly Spanish classrooms again scored the lowest of the three groups. This suggests that if Spanish was the predominant language of instruction, then perhaps the acquisition of English language skills necessary to disembed mathematics problems may have been inhibited. However, LES/NES students from medium and high SES backgrounds in predominantly Spanish classrooms were able to convert their SES advantages into higher math achievement scores. Further research can address this interesting interaction between SES and math achievement.

The above discussion suggests that different types of medium of instruction have differential impact on educational achievement. Classrooms with equally mixed language instruction exert a compensatory effect on educational achievement, while the classrooms with predominantly Spanish or English instruction in general do not produce such a positive impact. Consequently, in discussing the impact of medium of instruction it is necessary to differentiate the compensatory effect of a mixed language classroom from the intricate effect of monolingual classrooms.[3]

Relating to this line of research is the issue on the relative impact between language minority background and socioeconomic status on educational achievement. It has been put forward in the early 1980s tht Hispanic students do poorly in school not because they speak Spanish, but because they are poor. Consequently, it is argued that bilingual program may be the wrong solution to Hispanic education; instead, more attention should be paid to the social barriers facing the low socioeconomic status children in receiving an equal opportunity of education. We shall examine this socioeconomic issue in the next chapter.

References

Baker, K., & deKanter, A.
1981 *Effectiveness of bilingual education: A review of the literature*. Washington, DC: Office of Planning, Budget and Evaluation, U.S. Department of Education.

Coleman, J., Hoffer, T., & Kilgore, S.
1981 *Public and private schools*. Washington DC: National Center for Education Statistics.

Fishman, J.
1977 The social science perspective. In Center For Applied Linguistics (Ed.), *Bilingual Education: Current Perspectives*. Arlington, VA: Center for Applied Linguistics.

Gaarder, B.
1977 *Bilingual schooling and the survival of Spanish in the United States*. Rowley, MA: Newbury House Publishers.

Mackey, W.
1978 A typology of bilingual education. In Anderson, T. and Boyer, M. (Eds.), *Bilingual schooling in the United States*. Texas: National Educational Laboratory Publishers, Inc.

National Opinion Research Center.
1980 High School and Beyond. Information For Users. Base Year (1980) Version 1. A Report to the National Center for Education Statistics under contract #300-78-0208. Chicago, IL: National Opinion Research Center.

Paulston, C. B.
1975 Ethnic relations and bilingual education: Accounting for contradictory data. Pp. 368-401 in Troike, R. C. (Ed.), *Proceedings of the First Inter-American Conference on Bilingual Education*. Arlington, VA: Center For Applied Linguistics.

Rist, R. C.
1982 Bilingual education: A policy-based research agenda for the 1980s. *The Urban Review 14*: 93-105.

So, A.
1982 High School and Beyond data set: Its relevance for bilingual education research. NCBR Technical Note #5. Los Alamitos, CA.: National Center for Bilingual Research.

Troike, R. C.
1978 Research evidence for the effectiveness of bilingual education. NABE Journal 3:13-25.

Footnotes

[1] Students were given the option of completing the questionnaire in English or in Spanish; only 56 out of the total student sample completed the questionnaire in Spanish. Achievement tests, however, were administered in English only.

[2] To facilitate presentation, a 3-category SES variable was used in Table 7.1. However, a continuous SES variable was used in the regression analysis. As a caution, it may be noted that there were only 21 cases in the high SES category in the sample. Consequently, the interpretation of the findings in the regression analysis is based mostly on students with low and medium SES.

[3] It may be noted that the findings also incidentally show that an ESL class is not sufficient to overcome the educational disadvantages of LES/NES Hispanic students. For the same group of LES/NES Hispanic students who enrolled in ESL classes, the findings here show that a bilingual medium of instruction still made a substantial impact on educational achievement. In this respect, bilingual medium of instruction may perform a function that cannot be substituted by ESL classes.

Table 7.1: Sample Characteristics of Hispanic LES/NES Students

	Socioeconomic Status			
	Low	Medium	High	Total
Medium of Instruction				
All or almost all English	6,293* (122)**	1,548 (39)	87 (7)	7,929 (168)
Mixed English/Spanish	9,202 (200)	3,109 (65)	277 (9)	12,588 (274)
All or almost all Spanish	7,642 (135)	1,962 (41)	239 (5)	9,573 (181)
Total	23,137 (457)	6,619 (145)	603 (21)	30,090 (623)

*Weighted population estimates.

**The number in the parentheses represents the actual N of students in the HS&B data set.

Table 7.2: Regression Equations and Predicted Reading Scores for SES and Medium of Instruction Groups

The general regression equation:

$$\text{Reading} = 90.7 + 6.79\ (\text{SES}) - 6.15\ (\text{All-Spanish}) + 2.33\ (\text{Mixed}) - 6.73\ (\text{All-Spanish.SES}) + 0.37\ (\text{Mixed.SES})^{*}$$

The regression equations for the three classrooms are:

For all or almost all English, Reading = 90.7 + 6.79 (SES)

For mixed English/Spanish, Reading = 93.03 + 7.16 (SES)

For all or almost all Spanish, Reading = 84.55 + 0.06 (SES)

Predicted Reading Score from the 3 equations:

	SES			SES Effect
Language of Instruction	Low(1)	Medium(2)	High(3)	(4)=(3)-(1)
All or almost all English (5)	83.9	90.7	97.5	13.6
Mixed English/Spanish (6)	85.9	93.0	100.2	14.3
All or almost all Spanish (7)	84.5	84.6	84.6	0.1
Instruction effect (8)=(5)-(7)	-0.6	6.1	12.9	

---

*Less than twice its standard error.

Table 7.3: Regression Equations and Predicted Math Scores for SES and Medium of Instruction Groups

---

The general regression equation:

Reading = 85.51 + 0.24 (SES)* + 2.79 (All-Spanish) + 8.32 (Mixed)

+ 6.21 (All-Spanish.SES) + 5.03 (Mixed.SES)

The regression equations for the 3 classrooms are:

For all or almost all English, Math = 85.51 + 0.24 (SES)

For mixed English/Spanish, Math = 93.83 + 5.27 (SES)

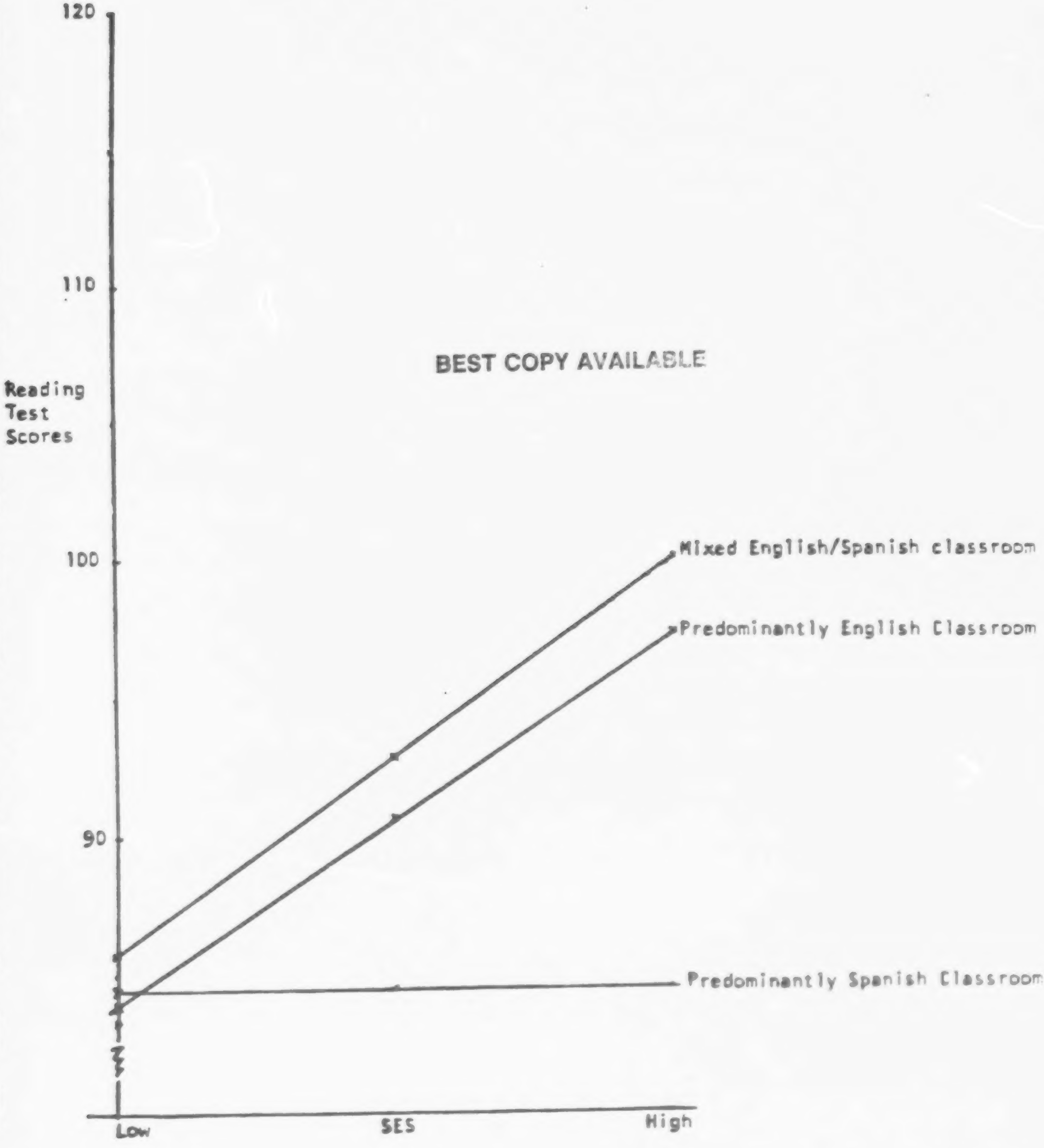
For all or almost all Spanish, Math = 88.3 + 6.45 (SES)

Predicted Reading Score from the 3 equations:

	SES			SES effect
Language of Instruction	Low(1)	Medium(2)	High(3)	(4)=(3)-(1)
All or almost all English (5)	85.3	85.5	85.8	0.5
Mixed English/Spanish (6)	88.6	93.8	99.1	10.5
All or almost all Spanish (7)	81.9	88.3	94.8	12.9
Instruction effect(8)=(5)-(7)	3.4	-2.8	-9	

---

*Less than twice its standard error.



BEST COPY AVAILABLE

Figure 7.1. Predicted math achievement and socioeconomic status for students from different classroom language environments.

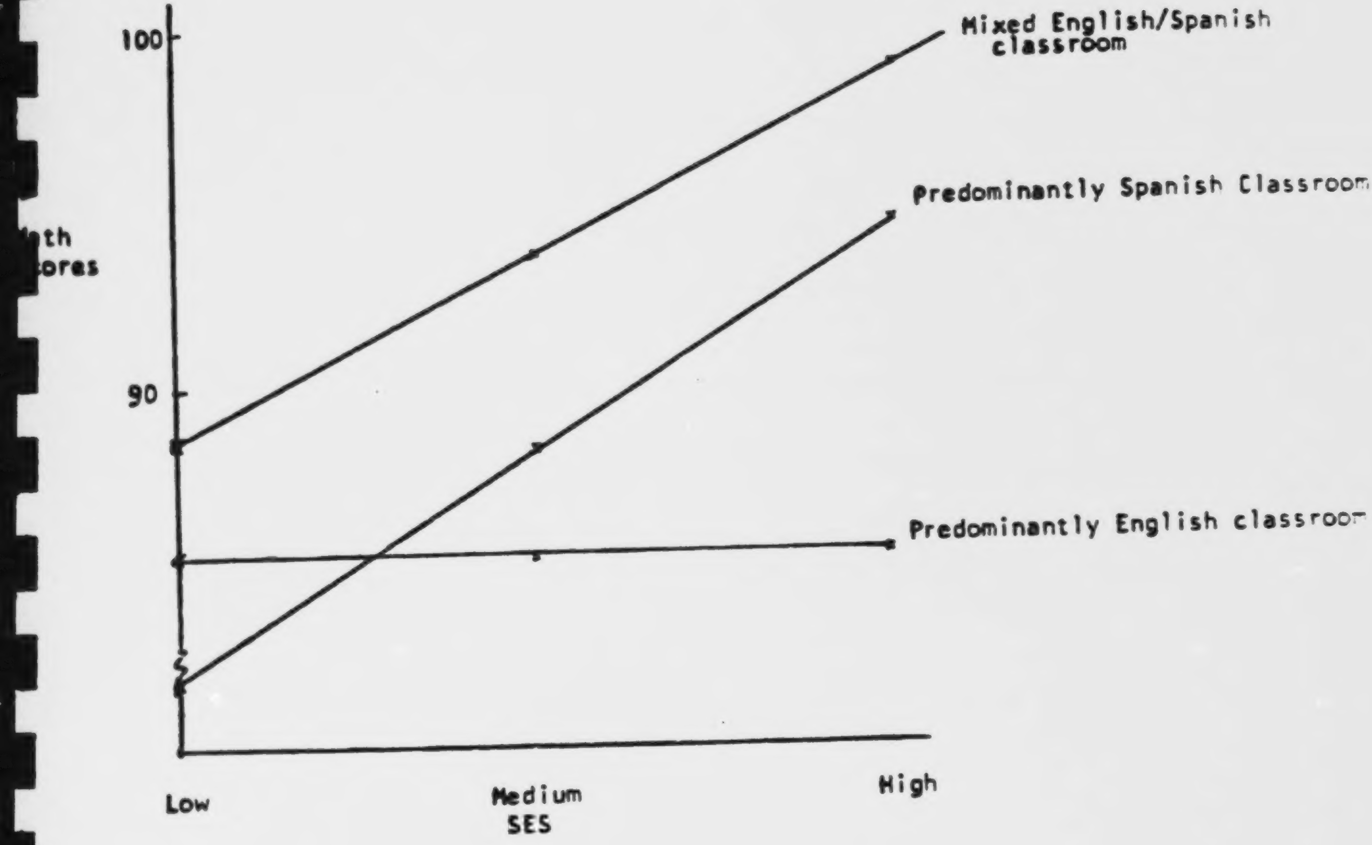


Figure 7.2. Predicted math achievement and socioeconomic status for students from different classroom language achievements.

Chapter 8: What Matters? The Relative Impact of Language Background and Socioeconomic Status on Reading Achievement

It has been well accepted that Hispanic language minority students perform poorly on reading achievement tests. What needs to be further investigated, however, is the cause of this poor reading performance: Is it strictly a matter of language background, or is it a matter of the socioeconomic status of Hispanic language minority students?

The Hispanic bilingual education literature tends to take the position that language background is the determining factor in reading achievement (see, e.g., Andersson & Boyer, 1978; Gaarder, 1977). The literature maintains that Hispanic language minority children experience school-related difficulties that depress their academic achievement in the early school years because they do not understand the instruction, which is conducted in English. Consequently, Hispanic language minority students, unable to communicate with their teachers, are unable to close the gap between them and their Anglo peers and fall further behind in the later school years. Furthermore, that early frustration establishes a pattern of failure for Hispanic language minority students which is compounded by the mismatch between their language and that of the school program and its environment. This perspective establishes a direct relationship between the language background of Hispanic language minority students and their poor academic and reading achievement.

Recently, this language background explanation has been challenged by Rosenthal, Milne, Ginsberg and Baker (1981). Suspecting that there may be hidden effects of socioeconomic deprivation, the authors ran a regression analysis on the Sustaining Effects Study data base. In their analysis of 1,800 language minority students, Rosenthal et al. pointed out that:

> language is not highly important in explaining level of achievement among the general population. Furthermore, the small influence on achievement level of language background is further reduced when socioeconomic status is controlled. Language background was found to have almost no influence on school-year learning. (p. 7)

Consequently, they concluded that socioeconomic status is much more closely related to achievement than is home language background.

The Rosenthal et al. paper opens an important debate over whether language background or socioeconomic (SES) is more crucial in explaining the low reading achievement of Hispanic language minority students. Previous research on bilingual education has often tended to focus on language background at the expense of the SES variable. Also noteworthy is Rosenthal et al.'s utilization of a national data set to advance their assertion. Bilingual education researchers have tended to overlook large scale survey data to test their hypotheses.

In spite of the above merits, however, the Rosenthal et al. study falls short of its goals for a number of reasons. First, while the Sustaining Effects Study data base is a nationally representative study, it was not designed to study the issues of language minority students. Consequently, the Sustaining Effects Study specifically excluded non-English speaking students from its sample. Hoephner (1982) explained that any school with 50% or more limited-English speaking students and any classroom which had predominantly limited-English speaking students were excluded from the sample.

Second, the Sustaining Effects Study data base does not contain a strong measure of language minority status or level of English proficiency. The Rosenthal et al. study used a measure of language dominance derived from the question on whether English was used by a parent in providing homework assistance. This question is problematic in that (a) parents do not necessarily provide homework assistance; (b) parents may not have the ability to provide homework assistance; or (c) homework assignments may be in English, which diminishes the likelihood of helping the child in a language other than English. Moreover, those 256 parents who failed to answer the homework question were arbitrarily grouped with 287 parents who reported helping in a language other than English. Since the Rosenthal et al. study did not properly measure the language variable, this may be the reason that the effect of language did not show up in the regression equation.

Third, the Rosenthal et al. study exaggerated the effects of the SES variable by including race. Since the SES variable generally does not include race as one of its categories, it is more appropriate to consider race as another control variable than to lump it together with the SES variable.

Finally, the Rosenthal et al. study did not examine the interaction effects between language background and socioeconomic status. Since a majority of language minority students are from low SES and Hispanic backgrounds, it is possible that a confounding effect among the above two variables could exist. Consequently, it may not be sufficient to study the effect of SES alone or the effect of language alone, but rather to study the statistical interactions between these two variables. The Rosenthal et al. study has pointed to a new research frontier but falls short of its goal.

The aim of this chapter is to follow the promising thread of the Rosenthal et al. study in examining the intricate relationships among language background, SES, and ethnicity. In order to avoid some of the methodological errors in Rosenthal's study, this chapter utilizes the High School and Beyond (HS&B) national data set which, among other things, was especially designed to collect data on issues facing Hispanic language minority students. In what follows, this chapter will describe the HS&B data base, discuss the variables used in the analysis, and then present and discuss the findings.

The Data Set

The High School and Beyond was a national longitudinal study of the cohorts of 1980 high school seniors and sophmores in the United States. All in all, about 58,000 students at 1,015 schools and school administrators from 988 schools completed questionnaires. The data set represents a population of 3.8 million sophomores and 3 million seniors in more than 21,000 schools in spring 1980 (Peng, Fetters & Kilstad, 1981; NORC, 1980a).

What makes the HS&B data base relevant to the present analysis is that special attention was paid to the collection of data on language minority populations (see Nielsen & Fernandez, 1981; So, 1982). If a student answered a non-English response to any or all of five language questions, that student was asked to complete another questionnaire concerning childhood language experiences, home language environment, pattern of other language usage, contact with bilingual education, etc. About 11,300 students answered the detailed language questions; their responses formed the language file of the HS&B data base (NORC, 1980b).

In addition to the special language questionnaire, the HS&B study also specifically over-sampled Hispanics, the largest language minority in the U.S. However, in order to avoid bias in over-sampling Hispanics, the HS&B assigned weights to each case in the sample. Weights were calculated to reflect differential probabilities of sample selection and to adjust for nonresponse. In this respect, the HS&B data set remains a nationally representative study that supplements the general information usually collected (e.g., family background, school experience, college aspirations, etc.) with information that is especially of interest to researchers in bilingual education.

It is not an easy task to measure the language background variable accurately because too often the phrasing of the language question elicits a response that is unanticipated by survey researchers. For instance, the question, "What language do the people in your home usually speak?" is adequate for measuring home language usage, but the question by itself does not indicate whether a student uses that language at home or not. The presence of grandparents in the home greatly increases the usage of ethnic languages, but it does not mean that the student uses that language. Since the task here is to study the student's reading achievement on an individual level, the above home language question is not suitable for our research purpose.

On the other hand, the individual language question, "What language do you usually speak now?" is hard to answer if the context of using that language has not been specified. Since the HS&B survey was conducted in English and the high school environment is totally English, a student answering the above question is more likely to respond in English. Thus, it is not surprising that 86% of the sample in the language file identified English as their usual language. Since this individual language question cannot distinguish language minority from non-language minority students, this question is limited in its usefulness for measuring language background.

Because of the above complications, this chapter aggregated several individual language questions that specify the context of language usage at home (speak that language to mother) and outside the home (speak that language with best friends, with other students, at work and in stores). The responses to these questions enable us to construct a three category language status variable as follows:

- English Monolingual--if a student never used a non-English language at home or outside the home.
- English Dominant Bilingual--if a student used a non-English language at home only but never used it outside the home.
- Other Language Dominant Bilingual--if a student used a non-English language at home and outside the home.

There is no other language monolingual category in the HS&B sample due to the sample constraints explained earlier.

Once the definitional problem of language minority status is settled, the measurement of SES, ethnicity, and reading achievement variables can also be defined in the HS&B data set. The HS&B data set has provided a standard socioeconomic status (SES) variable which is a composite scale constructed from father's occupation, father's education, mother's education, family income, and a set of items that ask whether the student's family receives a daily newspaper, owns an encyclopedia or other reference books, has a typewriter, an electric dishwasher, two or more cars or trucks, more than 50 books, or a pocket calculator, and whether the student has his or her own room. Each item of the SES scale was standardized within a grade to a mean of zero and a standard deviation of one. The mean of the non-missing items was then taken for each case to yield the composite SES measure.

The ethnicity variable is taken from responses to the question, "What is your origin or descent?" Students are Hispanic if their ancestry was originally from Latin American countries, and students are White if their ancestry was originally from European countries. This chapter includes only Whites and Hispanics for the analysis.

Finally, reading achievement is measured by scores on the reading test in the student questionnaire. The reading test score variable is standardized across grades to have a mean of 50 and a standard deviation of 10 for the entire HS&B test-taking sample. In this chapter, the original HS&B reading test scores were then multiplied by two, thus yielding a mean of 100 and a standard deviation of about 20. Such an alteration does not change the relative value of the reading scores and allows easier interpretation.

To recall, the primary research question addressed in this chapter is which factor(s) account for the low reading achievement scores of Hispanic language minority students. Regression analysis provides the best method for answering this question.

The Regression Model

The coefficients in a regression equation[1] will show the effect of a one-unit increase of an independent variable on the dependent variable after controlling for the effects of other independent variables in the regression equation. In this chapter, the dependent variable is the reading achievement test scores, and the independent variables are language backgrounds, SES, and the interaction terms between these two variables. Since language background is a nominal variable, the dummy variable regression technique described in the Statistical Package for Social Sciences (SPSS) computer program can be performed on them. We ran two sets of regression equations: One for the white, another for the

Hispanic students.

The means, standard deviations, and the correlation matrix used to compute the regression coefficients are presented in Table 8.1. The interpretation of the regression coefficients will be given in the next section.

The Findings

Table 8.2 presents the regression equation for each ethnic group. For white students, the coefficient (-9.73) for the other-language dominant bilingual variable means that when the effects of all other independent variables were controlled, bilingual white students scored 9.73 points lower in reading achievement tests than the English monolingual white students. Similiarly, the Spanish-dominant Hispanic students scored about 8.96 points lower than the English monolingual Hispanic students. When we turn our attention to the coefficient of socioeconomic status (SES), we find that SES also has a fairly strong independent effect on reading achievement, although its impact is stronger on white (6.85) than on Hispanic students (3.21). In sum, the regression coefficients in Table 8.2 point to the fact that each of our independent variables (SES and language background) contributes uniquely to the explanation of the reading achievement variable.

Table 8.2 also reports the interaction terms among the independent variables. Although the interaction terms are less than the coefficients of the independent variables, they are statistically significant at 0.05 level and their sizes are not negligible. As such, the contributions of these interaction terms have to be taken into account in calculating the predicted reading achievement scores from the regression equation.

Table 8.3 presents the predicted reading achievement scores for each ethnic group. Columns 4 and 8 in Table 8.3 report the impact of language background on reading achievement after the effects of ethnicity and SES have been controlled. These two columns show that language background has a consistent effect on reading achievement for each SES and ethnic group. On the other hand, row 12 in Table 8.3 shows the impact of SES on reading achievement after the effects of ethnicity and language have been eliminated. Row 12 reveals the interesting interaction effects among the three independent variables. In general, the impact of SES on reading achievement was stronger for Whites than for Hispanics, and stronger for English monolinguals than for Other-language dominant bilingual. But for the medium SES Hispanic students, there is an interaction effect in which the SES factor proves to be very important in explaining reading achievement.

These interaction effects can further be shown by plotting the figures in Table 8.3 in Figure 8.1 and 8.2. The slope of the lines in

Figures 8.1 and 8.2 illustrate the interaction effect vividly. Comparing these figures, we find that the slopes for the White students are steeper than those for the Hispanic students, suggesting that SES has more of an impact on White students than on Hispanic students. However, for the English-dominant Hispanic bilingual students, the medium SES and high SES groups more readily convert their SES advantages into reading achievement than do their English monolingual Hispanic peers. This suggests that for high SES Hispanics, there may be educational advantages to being bilingual.

The gaps between the lines in Figure 8.1 and 8.2 present the differences of reading achievement scores between English-monolinguals and Other-language dominant bilingual students, even when the effect of ethnicity and SES have been controlled. This gap shows the disadvantages to reading achievement facing language minority students; it is about 9 points on the reading achievement test for Hispanics and about 10 points for White language minority students.

Further Analyses on the Reading Achievement Gap

To elaborate on this reading achievement gap concept, a different statistical technique can be applied to the data. In the following analyses, we are interested in knowing how much the reading achievement gap between English monolingual and Other-language dominant bilingual students would be reduced if the effect of SES was removed? In other words, what would be accomplished if we hypothetically eliminate the language minority student's handicap with respect to the economic level of the family, but their disadvantages with respect to language background and ethnicity remained intact.

It is inappropriate to use the increment of the variance explained (R^2) to provide answers to the above question because of the correlation between socioeconomic status and language background (see Bowles & Lewis, 1971). Consequently, we rely on the statistical method generated by Duncan (1969). The findings in Figure 8.3 are a replication of Duncan's method for removing the effect of SES from their compound effects with language background.[2] Figure 8.3 shows that removing the effects of SES would hypothetically reduce the reading achievement gap by 3.9 points out of a total of 15 points.

Furthermore, since we are now examining the white and Hispanic students together, we can suppose that if we eliminated the effects of SES and ethnicity, how much more would the reading achievement gap be reduced? Such an intervention, accomplished hypothetically by simple mathematics, would further reduce the reading achievement gap by another 3.6 points.

Following the above logic, suppose a group of language minority students have the same SES and ethnic status as their English monolingual peers. The reading achievement gap between the two groups would be reduced, but there would still be 7.5 points difference separating the two groups. In other words, 7.5 points out of the original reading achievement gap of 15 points, or 50% of the difference, are still unexplained, even after we remove the effects of SES and ethnicity from the regression equation.

Discussion and Conclusions

This chapter initially asked whether language background or SES is more important in explaining the reading achievement level of Hispanic language minority students. The findings here reveal that both language background and SES have a substantial impact on reading achievement scores. This is not surprising since the bilingual education literature has long argued that immersion of language minority children in a language environment alien to their own language background will depress their subsequent educational achievement. Moreover, sociological studies suggest that children from a low socioeconomic background are deprived of certain cultural advantages such as owning books, reading scientific journals, or possessing a calculator, which can promote educational achievement.

Our analyses explore the interaction terms between language background, SES, and ethnicity. The results support the notion that since a majority of language minority students are from low SES and Hispanic backgrounds, a confounding effect among these three variables could exist. Consquently, it was found that SES had more of an impact on white than on Hispanic students. This result supports Carter's (1970) observation that the influence of family economic level is greater for Anglo than for Mexican-American pupils. What this interesting result suggests is that the major obstacle facing the reading achievement of white students is their socioeconomic background, and raising the SES of the white students may help them overcome their language handicaps (see, for instance, Bernstein, 1961). But for Hispanic language minority students, raising their SES background may not improve their reading achievement because they are faced with other obstacles besides low SES.

To further analyze the reading achievement gap between students who are language minorities and those who are not, this chapter utilized Duncan's regression method to remove the effects of SES and ethnicity. It was found out that there was a reading achievement gap of 15 points between the two groups. These 15 points were partly explained by the unique contribution of the SES variable, while another portion was attributed to the interactions among language, SES, and ethnicity. But even when we removed the effects of SES and ethnicity, we had accounted for only about 7.5 points (50%) of the original reading achievement gap of 15 points. Therefore, the remaining unexplained 7.5 point difference has to be explained by language and other variables.

These findings can have two interpretations. First it points out that disadvantages in reading achievement for language minority students remains even when the effects of SES and ethnicity are controlled. Since all students, including Hispanic language minority students, are entitled to receive a quality education, it is important to provide programs that specifically address their language needs in order to reduce the reading achievement gap between language minority students and non-language minority students. As this chapter demonstrates, efforts which are directed only to raising the SES and ethnic status of Hispanic language minority students will not provide an adequate solution to the problem; it seems that the problems of Hispanic language minority students need to be solved by programs that are specifically designed to eliminate their language differences.

Second, it also points to the effect of SES on reading achievement. The 15 point disadvantaged gap between language minorities and those who are not are reduced to half when the effect of SES and ethnicity are controlled. Our stress on the language factor in this paper should not obscure the barriers caused by being in low socioeconomic status in educational achievement. As such the next chapter will especially address one crucial aspect of these barriers facing the low SES student, namely, the impact of financial aid programs on the college-going behavior of Hispanic students.

References

Andersson, T. & Boyer M.,
1978 *Bilingual schooling in the United States*. Texas: National Educational Laboratory Publishers.

Bernstein, B.
1961 Social class and linguistic development. In A. H. Halsey, J. Floud, & A. Anderson (Eds.), *Education*, *economy*, *and society*. New York: Free Press.

Bowles, S. & Levin, M.
1971 Critique of the Coleman Report. In P. C. Saxton (Ed.), *School policy and issues in a changing society*. Boston: Allyn and Bacon, Inc.

Carter, T. P.
1970 *Mexican Americans in school: A history of educational neglect*. New Jersey: College Entrance Examination Board.

Coleman, J. Hoffer, T. & Kilgore, S.
1981 *Public and private school*. Report to NCES under contract OE-300-78-0208. Washington DC: National Center for Education Statistics.

Duncan, O. D.
1969 Inheritance of poverty or inheritance of race? In D. P. Moynihan (Ed.), *On understanding poverty*. New York: Basic Books.

Gaarder, B.
1977 *Bilingual schooling and the survival of Spanish in the United States*. Rowley, MA: Newbury House Publishers.

Hoephner, R.
1982 Personal communication to the author. May 1982.

Nielsen, F. & Fernandez, R. M.
1981 *Achievement and Hispanic students in American high schools*. Report to the National Center for Education Statistics under contract #300-78-0208. Chicago: National Opinion Research Center.

National Opinion Research Center.
1980a *High School and Beyond: Information for Users*. Base Year 1980. Report to the National Center for Education Statistics under contract #300-78-0208. Chicago: National Opinion Research Center.

National Opinion Research Center.
1980b High School and Beyond: Language File Codebook. Chicago: National Opinion Research Center.

Peng, S. S., Fetters, W. B. & Kilstad, A. J.
1981 High School and Beyond: A national longitudinal study for the 1980's. A capsule description of high school students. Washington, DC: National Center for Education Statistics.

Rosenthal, A. S., Milne, A., Ginsburg, A. & Baker, K.
1981 A comparison of the effects of language background and socioeconomic status on achievement status among elementary school students. Draft final report, subcontract #b43601 from System Development Corporation under contract #300-75-0332. U.S. Dept. of Education. 1981.

So, A.
1982 The High School and Beyond data set: Its relevance to bilingual education research. NCBR Technical Note No. 5. Los Alamitos, CA: National Center for Bilingual Research.

Steinberg, L., Blinde, P. & Chan, K.
1982 Dropping out among language minority youth: A review of the literature. NCBR Report No. 02-82. Los Alamitos, CA: National Center for Bilingual Research. 1982.

Table 8.1. **Means, Standard Deviations, and Correlations***

	Reading	SES	Eng Dom	Oth Dom	SES.Eng	SES.oth	$\bar{X}$	S.D.
Reading	--	.248	.031	-.155	.171	.052	105	19
SES	.222	--	.082	-.060	.678	.338	.137	.728
Eng Dom	.108	.035	--	-.276	.204	-.001	.419	.493
Other Dom	-.205	-.196	-.693	--	-.056	.002	.096	.294
SES.Eng	.121	.589	-.464	.322	--	-.000	.087	.502
SES.oth	.167	.552	.455	-.656	-.211	--	.000	.246
$\bar{X}$	92	-.537	.462	.359	-.235	-.260	--	--
S.D.	18	.711	.499	.480	.548	.529	--	--

*The coefficients for the White are in the upper diagonal, while those for the Hispanic are in the lower diagonal.

BEST COPY AVAILABLE

Table 8.2. The Regression Equations for Reading Score*

I. For White Students ($R^2 = 0.08$)

Reading = 105.86 + 6.85 (SES) - 1.17 (ENG Dom) - 9.73 (OTH Dom)
-2.75 (SES.OTH) - 0.20 (SES.ENG)

English Monolinguals: Reading = 105.9 + 6.9 (SES)

English-Dominant Bilinguals: Reading = 104.7 + 6.7 (SES)

Other-Dominant Bilinguals: Reading = 96.1 + 4.1 (SES)

II. For Hispanic Students ($R^2 = 0.09$)

Reading = 97.80 + 3.21 (SES) + 0.51 (ENG DOM) - 8.96 (OTH DOM)
-1.26 (SES.OTH) + 4.07 (SES.ENG)

English Monolinguals: Reading = 97.8 + 3.2 (SES)

English-Dominant Bilinguals: Reading = 98.3 + 7.3 (SES)

Other-Dominant Bilinguals: Reading = 88.9 + 2.0 (SES) level for the white group but were significant for the Hispanic group.

---

*All the regression coefficients in this table are twice their standard errors. Significance tests had been performed on both the white and Hispanic groups. This was done by using the coefficients from the weighted sample and using the degree of freedom from the unweighted sample (see Coleman, 1981). It was found out that the interaction terms (in SES.OTH, SES.ENG) were not significant at 0.01

Table 8.3. Predicted Reading Test Scores from the Regression Equation

		White				Hispanic			
		Eng Mono (1)	Eng Dom (2)	Other Lang Dom (3)	Difference (4)=(1)-(3)	Eng Mono (5)	Eng Dom (6)	Other Lang Dom (7)	Difference (8)=(5)-(7)
Socioeconomic status*									
High	(9)	112.7	111.3	100.2	(12.5)	100.0	105.6	90.8	(9.2)
Medium	(10)	105.9	104.7	96.1	(9.8)	97.8	98.3	88.9	(8.9)
Low	(11)	99.0	98.0	92.0	(7.0)	94.6	91.0	86.9	(7.7)
Difference	(12)=(9)-(11)	(13.7)	(13.3)	(8.2)	--	(5.4)	(14.6)	(3.9)	--

*We used a continuous SES variable which has a mean of 0 and a standard deviation of 1. The high, medium, low SES categories are calculated by assigning 1, 0, -1 to the SES variable in the regression equation.

BEST COPY AVAILABLE

BEST COPY AVAILABLE

Footnotes

[1] Because of the suspected interaction terms between SES and language status, it is inappropriate to examine the increment of R^2 by each variable entered into the regression equation as a measure of the unique importance of that variable. As Bowles and Levin (1971) explain, the shared portion of variance in achievement which could be accounted for by either X_1 or X_2 will always be attributed to that variable which is entered into the regression equation first. In this aspect, it is more appropriate to examine the regression coefficients in the equation than to examine the addition of the proportion of variance.

[2] The computation of the figures are like this: for the English monolingual sample, compute the regression of reading scores on SES only. Having computed the regression coefficients, substitute the other language dominant bilingual means on the SES into the regression equation for English monolingual students. This yields a calculated value of 100.8, shown as the second figure in the chart in Graph 3. In effect, the question answered by this calculation is this: suppose a selected group of English monolingual students have SES scores equal to the average scores for all Other language bilingual students, what would be our best estimate of their reading test score? The calculation assumes that the remaining variables in the regression operate in the fashion observed for English monolingual. Similarly, the second calculation utilizes the English monolingual regression of

reading scores on SES and ethnicity; Other language dominant bilingual means on these two variables are substituted into the English monolingual equation to produce the estimate of 97.2 reading test score in Figure 8.3.

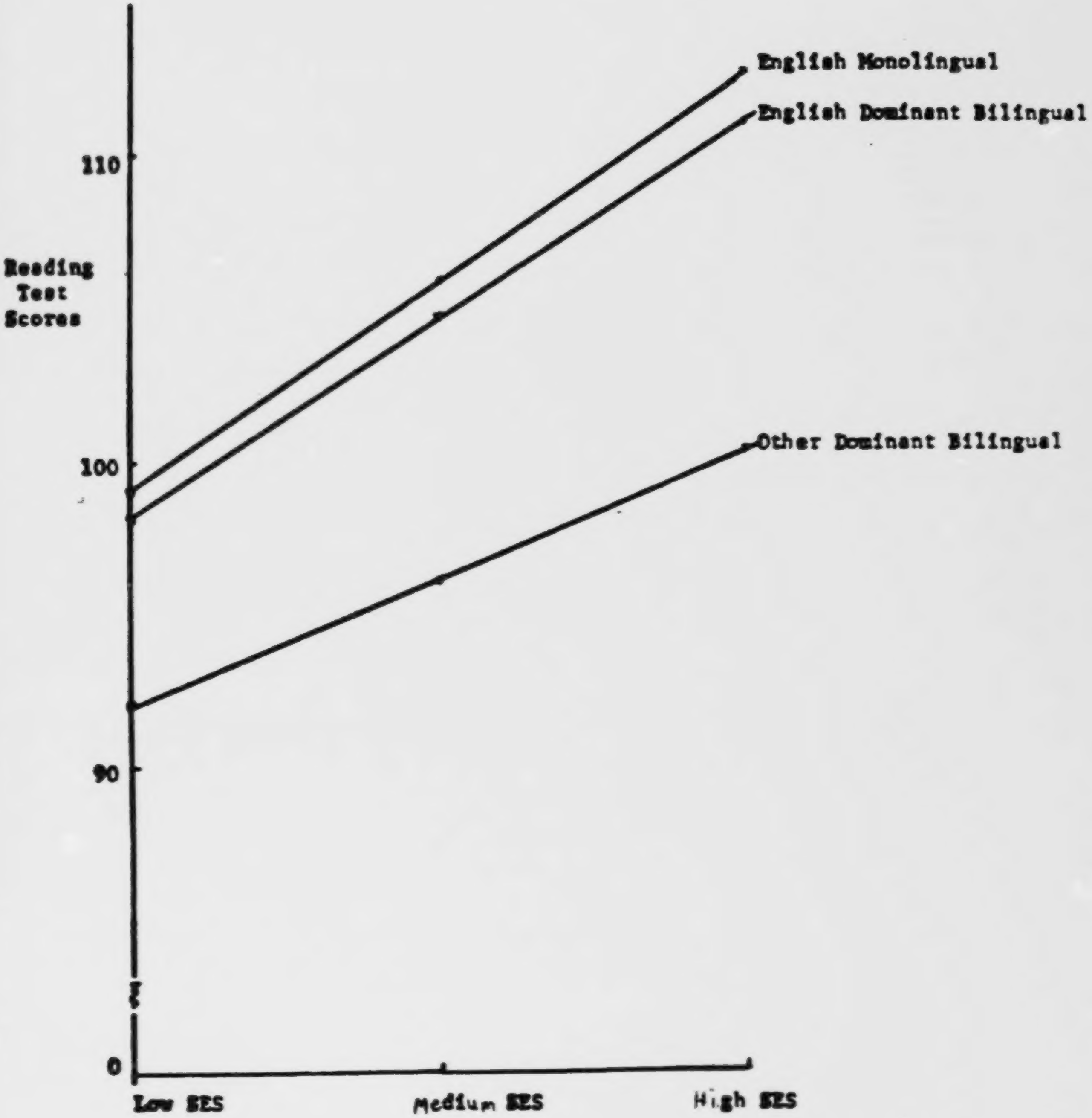


Figure 8.1. Reading Test Scores of White students.

BEST COPY AVAILABLE

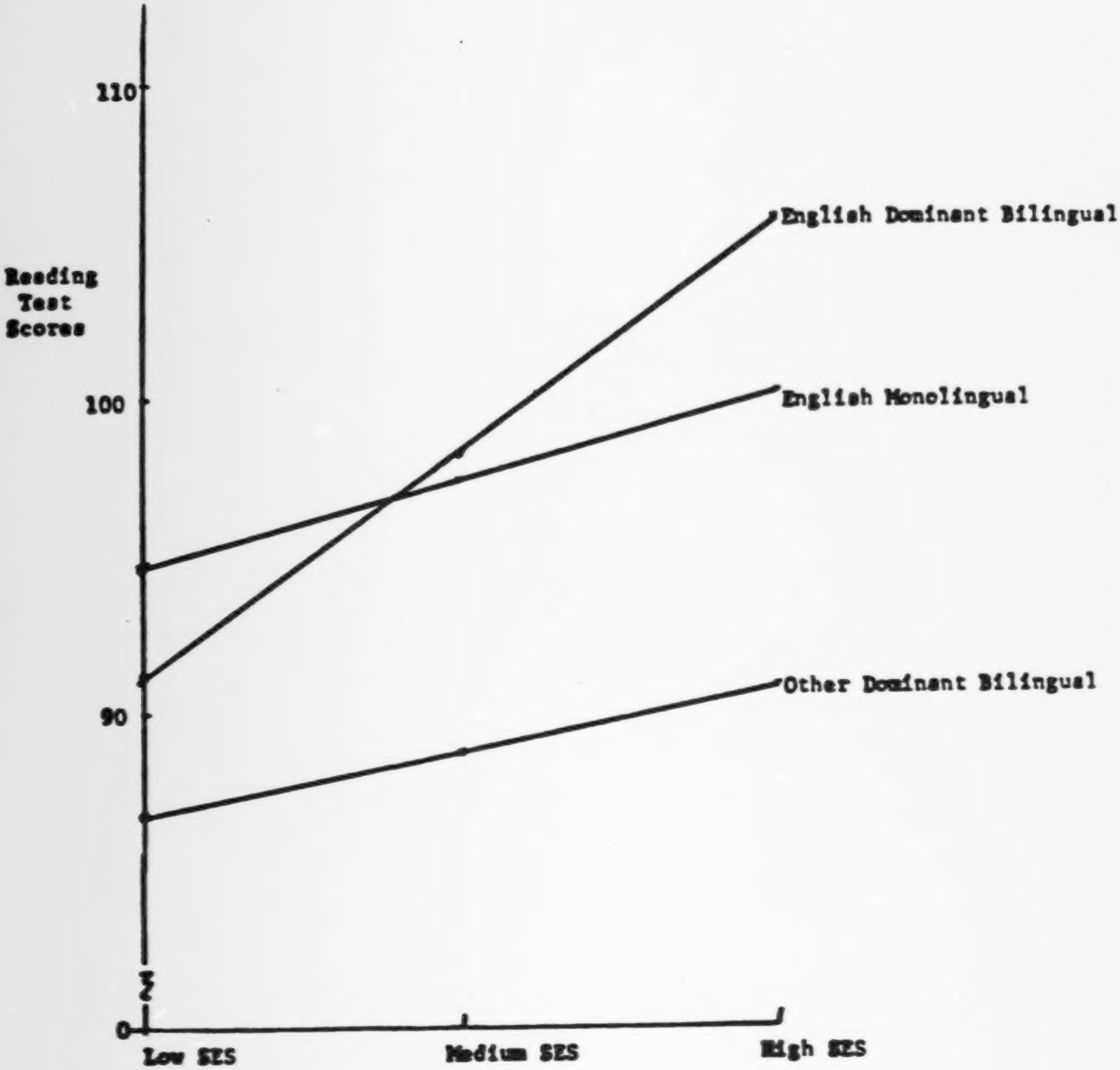


Figure 8.2. Reading Test Scores of Hispanic students.

BEST COPY AVAILABLE

Mean Reading Test Score of English Monolingual Students

104.7

If the effect of SES is removed, the reading test score will become 100.8. Therefore, SES has removed 3.9 points or 26% of the reading test achievement gap.

100.8

If the effect of both SES and Ethnicity are removed, the reading test score will be 97.2. Therefore, after SES, ethnicity has removed another 3.6 points or 24% of the reading test achievement gap.

97.2

The reading test achievement gap that remains unexplained by SES and Ethnicity, which is equal to 7.5 points or 50% of the original gap.

89.7 **The Total length of the reading test gap is** 15 points or 100%

The regression equations for the above calculation are as follows:

For English Mono, Reading=104.5 + 6.97 (SES)

Reading=105.93 + 6.15 (SES) —7.44 (Ethnic)

The Means for the substition are:

For English Mono, Reading=104.7, SES=0.04, Ethnic=0.20

For Other Lang Dominant Bilingual,

Reading=89.7, SES=-0.53, Ethnic=0.73

Figure 8.3. How would the removal of the effects of SES and Ethnicity reduce the reading test achievement gap between English Monolingual and Other-Language Dominant Bilingual Students?

BEST COPY AVAILABLE

Chapter 9: The Financing of College Education by Hispanic Parents

Should Hispanic students receive financial aid to cover their college education? Do present financial aid programs serve their needs? What impact will financial aid programs have on their college-going behavior? These are three important questions that researchers need to address in studying the financing of college education for Hispanic students. Inevitably, the answers to the above questions are controversial, for they involve the political issues of who should get what, for how much, and in what ways.

Accessibility Perspective

In general, there are two perspectives which provide totally different answers to the above questions. The first is called the accessibility perspective; its proponents advocate free access to higher education for any qualified student (Porter et al. 1973; Sewell, 1971; Willingham, 1970). This perspective argues that economic factors, such as high cost of tuition, should not be a hinderance for qualified students, who are unable to afford college expenses, to enter higher education. This perspective points out that the lack of strong financial aid programs before the 1960s discouraged bright students from low socioeconomic and ethnic minority status from continuing education beyond high school, and led to the under-representation of disadvantaged students in higher education. In order to reverse this trend of under-representation, the accessibility perspective proposes the increases of grants, low interest loans, and scholarships as financial incentives to encourage the students from disadvantaged background to apply and to enter college.

The accessibility perspective was very popular in the late 1960s, during the height of student protests and the civil rights movements and exerted a strong impact impact on policy: the amount and the scope of financial aid available to disadvantaged students increased significantly (Cohn, 1979). However, by the early 1980s, in the midst of economic recession and budget cutting, a new perspective on financial aid has begun to emerge to shape the educational policies of this country.

Self-help Perspective

This emergent paradigm can be named as the self-help perspective (see the reports of Mirga, 1983, Magallan, 1983). As a reaction to the accessiblity perspective, this new view argues that, over the past decade, parents have relied too heavily on the federal government to provide financial assistance for college costs. The self-help perspective aims to restore parents and students to the primary role of meeting the responsibility for postsecondary educational cost. This perspective proposes a plan to transform all the previous grant programs (e.g., Pell Grants, Supplemental Educational Opportunity Grants, and State Student Incentive Grants) into one self-help program in which a student would be required to provide a mininium of 40%, or a mininium of $800, of their educational expenses before a grant would be awarded. In order to encourage parent to prepare financially for their children's college expenses, this perspective also proposes tax-free college savings accounts and tuition tax credits.

The emergent self-help perspective has received a negative reaction from proponents of the accessbility perspective. Goldman (1983) reported in the Los Angeles Times that some college administrators fear that the specter of a 40% barrier will prove insurmountable for many of the poor: Administrators do not see how the students can come up with 40% of the self-help funds. Similiarly, Magallan (1983), in the Newsletter of the National Chicano Council on Higher Education, suggested that the slow federal financial aid squeeze has increased student anxiety, caused students to switch to lower-cost institutions, and pushed them out of school altogether.

Despite the often-heated debate between proponents of the two perspectives, the controversial issues surrounding financial aids are still largely unsettled. There is a lack of social scientific study of the process by which minority parents and students finance college education. As a result of the shortage of reliable analyses, the proponents of the two perspectives tend to talk past one another and appeal to ideological grounds instead of to scientific analyses. This lack of informed judgement is unfortunate because many issues surrounding financial aid are empirical rather than political and thus can be examined by scientific survey research methods.

Issues Related to Financial Aids

The purpose of this chapter is to fill such a gap. Using a national data set which contains rich information on financing college education, this chapter examines three crucial issues that are bones of contention between the accessability and the self-help perspectives.

Affordability. The First issue relates to affordability. Can minority parents and students afford college education without financial aids? The accessibility perspective assumes disadvantaged social groups cannot afford paying college, pointing out that college expenses are too high a burden for them to bear. On the other hand, the self-help perspective argues that going to college is a rational decision that parents and students have to make. Beyond that basic decision they must choose between investing their resources in human capital (college education) or in other opportunities (business, home, leisure). The self-help perspective assumes that parents and students have enough resources to finance a college education. What is at issue, then, is whether the parents are willing to make the financial sacrifice to send their children to college instead of making other investments. Although considerable discussion has addressed this affordability issue, little empirical research has been done to study whether disadvantaged social groups can afford college education or not.

Relevance. The second issue relates to relevance of financial aid programs in meeting the needs of parents and students. The self-help perspective suggests that parents and students have relied too heavily on assistance from financial aid programs, whereas, the accessibility perspective argues that present financial aid programs are too limited in serving needy parents and students. It is important to study the proportion of minorities who rely on financial aid to cover college expenses; we can determine how minority parents and students applied for financial aids; what percentage of those who applied received aid; and , for those who received aid, how much they recieved. Given such information regarding reliance on financial aid programs, we can further study whether minority parents are familiar with the various aid programs, how do parents obtain their knowledge of financial aids, and what problems they perceive in applying for financial aids. This line of investigation will shed light on whether existing programs meet the needs of minority parents and students.

Impacts. The final issue relates to potential impact of the self-help program. The accessibility perspective asserts that the self-help program will scarce minority students away from college, whereas the self-help perspective argues that the new aid program will increase parental incentive to prepare financially to send their children to college. Since the self-help program is still in its formative stages, it is difficult to directly study its impact on college-going behavior. However, we may detect its possible impact by studying the following two types of parents: (1) For those minority parents whose children did not enter college after high school graduation, we can investigate why their children did not go on to college. If the high cost of college tuition is the reason given for not continuing in higher education, then it may be inferred that financial factors are critical. The proposed self-help program might serve to defer minority parents from sending their children to college. If other reasons are given for not going to college, then it money may not be a factor at all and the self-help program would have no effect on college-going behavior. (2) For those minority parents who now have children in college, we can investigate whether college expenses, availability of aids, possibility of living at home while attending college, etc., were important considerations in choosing a particular college for their children. Importance of those factors suggests that the college-going behavior of minority student may be strongly influenced by financial considerations;

and the cutting back of financial aid programs might deter the minority parents from sending their children to college. If these factors were not important, then financial considerations may not be crucial to the selection of a a particular college; and the self-help program may have little negative impact on college-going behavior.

In examining the above three issues of affordability, relevance, and impact, it is useful to have a national data set which provides rich information on financial aid matters. The High School and Beyond data set is appropriate for this purpose.

The High School and Beyond Data Set

Funded by the National Center for Education Statistics (NCES), the High School and Beyond (HS&B) data set was the first wave of a national longitudinal study of cohorts of high school students in the United States in 1980. The HS&B project design included a highly stratified national probability sample of over 11,000 high schools with36 seniors and 36 sophomores per school. In those schools with fewer than 36 seniors or sophomores, all eligible students were included in the sample. Cooperation from both schools and students was excellent. The overall response rate for schools was 91% and for students, 84%. Over 30,000 sophomores and 28,000 seniors enrolled in 1,015 public and private high schools across the nation participated in this study. The HS&B sample represents the nation's 10th and 12 grade populations, totaling about 3.8 million sophomores and 3 million seniors in more than 21,000 schools in spring, 1980 (Peng et al., 1981; NORC, 1980; SO, 1982).

In order to collect data from as many different sources as possible, the HS&B project distributed several sets of questionnaires to various individuals such as students, parents, teachers, and school administrators. This chapter focuses on the parent questionaire which includes detailed information on family financial background (NORC, 1981).

The sample of parents was selected in two stages. At stage one, a systematic subsample of cooperating schools was selected. At stage two, a subset of cooperating students was selected within stage-one schools; their parents were then contacted for an interview. Because of phone contact the follow up procedures, a completion rate of 92% for sophomores and 90% for seniors was attained. After the data collection phase was completed, design weights were appended to the data. The parents' weights were designed to : (1) compensate for varying student selection probabilities; (2) compensate for differential cooperation rates among parents across schools within grade; (3) project the parent sample to the national universe from which it was selected. The numbers reported in this chapter are based on the weighted estimates.

In the parent file, there are 612 Hispanic and 4,612 Anglo fathers and mothers, projecting to a national population of about 0.3 million Hispanic parents and 4.9 million Anglo parents. A majority of Hispanic parents in this file are from Spanish speaking backgrounds: About 4% live in a Spanish monolingual home, 36% live in a home in which Spanish is the usual language, 48% live in an English home where Spanish is also spoken, and only 12% live in an English monolingual home. In contrast, although a few Anglo parents speak a language other than English at home, 99.9% usually speak English at home. Thus we are comparing a group of Anglo-English speaking parents to a group of Hispanic language minority parents.

There are also important differences in socioeconomic status between the Anglo and Hispanic groups. The Hispanic parents are at the lower end of SES. About two-thirds of the Hispanic parents have a high school education or below, and the same percentage work in manual occupations or are unemployed. In contrast, over one-third of the Anglo fathers are employed in professional occupations and almost half of the Anglo mothers work as clerical and sales workers. Given these differences in socioeconomc status, we might expect different patterns of financing college education by Hispanic and Anglo parents. This chapter focuses on the financing of college education by these two ethnic groups only.

What makes the HS&B data set particularly useful for our purpose is its rich information on family income and family financing college education. Indeed, with respect to the issue of affordability, it is imperative to measure the family financial situation accurately in order to determine whether parents can pay for a college education for their children. It is exactly in this area, however, that researchers usually encounter difficulties because of the problem of obtaining reliable information on family finance. The literature usually asks a student the following question: "How much money did your family make last year?" The answer to this question is hardly reliable because a student seldom knows accurately how much money his family makes in a year. In this respect, the parent file of the HS&B data set makes a novel contribution by including data not only on wages, salary, commissions or tips from all jobs for all the earners in the family, but also asks specific questions on dividends, interests, trust funds, rent, social security, pensions, unemployment benefits, inheritances, child support payments, alimony, aids to families with dependent children, supplemental security income, financial help from relatives, income from roomers or boarders and other incomes. We can create a variable called "family income" by summing up the responses to all the above questions. In addition, the parent file includes numerous questions on checking account balances, saving accounts balances or shares, investment in U.S. government saving bonds, stocks, marketable securities, principal paid off to date on land and real estate, and value of businesses. An "asset" variable can be created by summing up the responses to the above questions. Similiarly, a "debt" variable can be computed by adding together the responses to the following items: the amount still owed on land and real estate; livestock and farm equipment; auto loans; business; debts on personal property such as unpaid balances on furniture; other credit accounts; amount owed for medical or dental care; amount owed to friends and relatives; and other personal debts such as finance company loans; bank loans; credit union loans, etc. These three new variables -- family income, assets, and debts -- provide us good measures of family finances.

The HS&B data set also provides an estimate of college expenses. Since the American image of a college student is one who goes to a four year college while living away from home, we can ask those parents who have a child who conforms to this image how much have they spent on their children's schooling and living expenses. While it is likely that tuition and living expenses vary from one state to another and from one college to another, the median expenses forschooling and living reported by this group of parents should provide a general estimate of how much money is needed to support a child studying in a four year college while living away from home.

These two estimates of family financial situations and college expenses enable us to address the question of whether Hispanic parents can afford sending their children to college.

The Issue of Affordability

Table 9.1 presents the findings related to the issue of affordability. The Hispanics, in general, have low earning power. About a quarter of Hispanic parents earns an annual wage of $6,000 or less. About a quarter of Hispanic family income is $9,000 or less, which is close to the poverty line for a family of four in 1980. The median wage and the median family income of Hispanics are both $15,000. These figures are much lower than the median wage income and the median family income of the whites, which is $23,000 and $27,000 respectively. In addition, the Hispanic parents not only have fewer assets than white parents ($800 versus $9,000), but also have more dependents (3) than than the white parents (2.5).

While Hispanic parents earn much less than white parents, Hispanic children's college and living expenses are close to that of white children. For a Hispanic youth attending a four year college while living outside home, median school expenses are $1,800 and his median living expenses are another $2,300 -- leading to median total expenses of $5,100. Corresponding figures for white students are $2,200 for median school expenses, $2,500 for median living expenses, and $5,900 for median total expenses.

Our findings show that Hispanic parents earn a median family income of $15,000 but have to pay $5,100 for sending just one child to college. Our findings, therefore, support the accessibility perspective assertion that Hispanic parents cannot afford to send their children to college without financial aid. Indeed, with such high college expenses, even white parents may find it difficult to send their children to college.

The figures presented at the bottom of Table 9.1 lend further support to the above findings. Only 15 percent of Hispanic parents and 28 percent of white parents indicated that they can pay for their children's further education without outside finance. In addition, 77 percent of Hispanic parents and 62 percent of white parents indicated that their family incomes are not too high for financial aid. With this high percentage of parents eligible for financial aids, it is important to study how these parents make use of aid programs to finance their children through college.

The Issue of Relevance

Table 9.2 presents figures related to the degree of dependency on financial aid. Although over three-fourths of Hispanic parents are eligible for financial aid, only 48 percent of them actually applied. Of those Hispanic parents who applied, only 63 percent received aid. Therefore, only 30 percent (.48 x .63) of Hispanic parents who are eligible of financial aid programs. The average amount of financial aid received is $1,600, or about 46 percent of total college expenses. Table 9.2 also presents figures for different income levels within groups the Hispanic sample. The application rate for aid is more or less the same across the three income levels in the Hispanic group, but the high income level Hispanic group is much less likely to receive aid than the medium and the low income level Hispanic groups.

The rate of dependency on aid is even less for the white parents. Although almost two-thirds of the white parents are eligible for financial aid, only 38 percent applied for assistance. Of the percentage who applied, only only 69 percent received aid. Therefore, only 26 percent (.38 x .69) of white parents are actually beneficiaries of finanical aid programs. The average award for white students is $1,800, or about about 43 percent of total college expenses. As was found for Hispanic students, high income white students have the same application rate as low income white students; but the high income white students are less likely to recieve aid.

The above findings do not support the self-help perspective's assertion that parents rely too much on financial aids for support. Instead, findings points out that less than one-third of Hispanic or Anglo parents are beneficiaries of aid program. Further, for those who are awarded aid, funding covers less than half of total college expenses. Given such low utilization of and dependency on financial aid programs, it becomes necessary to examine why the finanical aid programs are not sensitive to the needs of the parents.

Knowledge of aid programs sheds some light on this low usage phenomenon. For Hispanic parents, 54 percent do not know about Basic Education Opportunity Grants; 69 percent do not know about Supplement Education Opportunity Grants; 72 percent do not know about Direct Student Loan Programs; 63 percent do not know about Guarantee Student Loans; and the same 63 percent do not know about College Work Study Programs. This high percentage of parents who lack of knowledge about financial aid programs is observed uniformly across all three Hispanic income levels.

While this lack of knowledge of finanical aid programs is also noted for the white parents, there are two striking differences between the Hispanic and white parents. (1) The Hispanic parents tended to seek information about sources of aid less than the white parents (28% versus 45%). For those Hispanic parents who sought information about aid programs, only two-thirds (66%) of them approached formal channels such as counselors, college representatives, and bank loan officers. A little calculation (.28 x .66) shows that only 19 percent of Hispanic parents utilized formal channels. (2) Hispanic parents have perceived more problems in applying for financial aid than white parents. Sixty-one percent of Hispanic parents report that ethnic groups have difficulty in getting aid and there is too much paper work in applying for aid. In addition, 54 percent of Hispanic parents have not been able to get information on financial aid. The figures for Hispanic parents are almost two times higher than that those for white parents.

The above findings point to lack of knowledge about aid programs and perceived difficulties in applying for aid as factors leading to the low utilization of financial aid programs among the Hispanic parents. These findings support the accessibility perspective's assertion that the present finanical aid programs are not sensitive to the needs of the Hispanic parents and have prevented them from fully utilizing the program benefits. If this is the case, it would be interesting to study the possible impact of the cutting back of financing aid programs. In other words, would the proposed self-help programs deter minority parents away sending their children to college? We shall discuss this impact issue in the next section.

The Issue of Impact

Table 9.3 provides figures related to the potential impact of the self-help program. Half of the Hispanic parents whose children did not enter higher education indicated lack of money as a reason for not continuing education beyond high school. For low income Hispanic parents, the two figures are higher: 59 percent indicated lack of money as a deterrent to sending their children to college. These high percentages suggest that if Hispanic parents had enough financial resources, half of them who did not send their children to college might start doing so.

Another way to detect the potential impact of the self-help program is to select those Hispanic parents who have a child in higher education (vocational school, 2 and 4 year college) and examine the ways in which they finance their children's higher education. It is found that 58 percent of Hispanic parents reply that college expenses are very important consideration in choosing a college, and this figure has risen to 76 percent for low income Hispanic parents. Moreover, 54 percent of Hispanic parents reply that the availability of aids is very important, and this figure is also higher for low income Hispanic parents (70%).

Table 9.3 also presents information on how the Hispanic parents cope with the high cost of college expenses. For those Hispanic parents who have children in higher education, 55 percent of their children are in 2 year college or vocational school. In addition, Hispanic parents tried to cut down the cost by choosing public college (82%) instead of private college, and choosing a college in this state (94%) instead of outside state. About six out of ten Hispanic parents answer "very important" to the question living at home while attending college. Taken a whole, these figures suggest that the lack of financial resources have already limiting the choice of higher education to junior public colleges that are close to home. Further cutting of financial aid programs might, as the accessibility perspective argues, frighten Hispanic parents away from even the junior colleges and vocational school.

Conclusion and Discussion

This chapter presented two contrasting perspectives on the financing of college education, with particular respect to Hispanics. The accessibility perspective argues for free access to college education for any bright student, without hinderance of economic considerations. The self-help perspective tries to shift the main responsibility for financing college education from the federal government to the parents and students. This chapter examined empirically the controversial issues surrounding these two perspectives. Issues discussed were Hispanic parent's ability to afford a college education for their children, the relevance of present financial aid programs in meeting the needs of Hispanic parents, and the possible impact of the self-help program on future college-going behavior. Using the national longitudinal data in the parent file of the High School and Beyond data set, our findings support many assertions of the accessibility perspective: The median family income of Hispanic parents is too low to send a child to college without financial aid; present financial aid programs are not sensitive to the needs of Hispanic parents; and cutting back of aid programs might deter Hispanic parents and students from higher education.

The above findings have important policy implications. Not only do they document the fact that financial aid programs are vitally important for Hispanic parents to provide their children with higher education, they also point to certain reforms that can increase the sensitivity of the present aid programs to the needs of Hispanic parents. Our findings reveal that the two main barriers facing the Hispanic parents are their lack of knowledge of the aid packages and their perceived problem in applying for aid. To deal with these two barriers, it is necessary to strengthen the communication network between the Hispanic parents and the formal channels which transmit the knowledge of aids (e.g. counselors, college representatives). In this respect, it may be useful for the schools to hold annual meetings for Hispanic parents to explain the kinds of financial aid programs available. It would also be useful if financial aid counselors in high schools would supply financial aid application forms and help Hispanic parents and students to fill them out. It seems that unless the schools are actively presenting financial aid programs to Hispanic parents, Hispanic parents' use of financial aid will be low, and the underpresentation of Hispanic students in higher education will likely be continued.

With this discussion on financial aid programs, this book has come to an end. In the next chapter, we shall provide a summary of all the issues discussed in this book and spell out the contribution of our findings to the understanding of Hispanic education.

Table 9.1. The Issue of Affordability

Variables	Hispanic	White
Family Financial Situation in $		
Wage: low quarter	6,000	17,000
median	15,000	23,000
high quarter	22,000	35,000
Other Income: low quarter	100	500
median	300	2,000
high quarter	2,000	4,000
Family Income (Wage + Otherwise)		
low quarter	9,000	20,000
median	15,000	27,000
high quarter	24,000	38,000
Assets median	800	9,000
Debts median	-3,000	-4,000
Number of dependents	(3.0)	(2.5)
College Expenses in $		
(Estimated from the median expenses of students attending a 4-year college and living outside home):		
School expenses	1,800	2,200
Living expenses	2,300	2,500
Total expenses (school + living)	5,100	5,900
Other Answers		
We can pay for children's further education without outside finance (% true)	(15%)	(28%)
Family income too high for financial aids (% false)	(77%)	(62%)

BEST COPY AVAILABLE

Table 9.2. The Issue of Relevancy

	Hispanic				White			
	All Income Groups	Low	Median	High	All Income Groups	Low	Median	High
Dependency on Financial Aid?								
% Applying for aid	48	46	46	54	38	40	42	36
For those who apply for aid, % receive aid	63	77	79	31	69	84	75	63
For those who receive aid % of aid to total expenses (Median)	46	46	46	*	43	66	46	40
Median of aids received (in $)	$1,600	$1,400	$2,300	*	$1,800	$1,800	$1,800	$1,800
Knowledge of Financial Aid Programs								
% Knowing nothing of Basic Education Opportunity Grant	54	50	55	59	54	51	57	54
Supplemental Education Opportunity Grant	69	68	67	72	68	69	69	67
Dialact Student Loan Program	72	72	72	70	62	69	67	57
Graduate Student Loan	63	64	65	60	53	67	60	47
College Work Study Program	63	63	60	66	52	59	58	47
Seeking Knowledge of Aid Programs								
Talk or read about sources of aid programs (% YES)	28	23	28	37	45	38	41	49
For those who talk or read aids: % talk to formal channels (counselor, college representative, loan officer)	66	55	83	68	77	73	76	78
%talk informally to parents	49	49	35	66	65	55	59	70
Perceived Problem of Getting Aid								
Ethnic group has difficulty (% true)	61	63	58	61	37	35	36	38
Too much paper work (% true)	61	63	58	61	37	35	36	38
Haven't been able to get information or aid (% YES)	54	57	54	50	31	35	38	27

[a] Too little cases in this category.

BEST COPY AVAILABLE

Table 9.3. The Issue of Impacts

	Hispanic				White			
	All Income Groups	Low	Median	High	All Income Groups	Low	Median	High
Select those parents whose children do not go beyond high school								
Reason not continue: % give reason as lacking money	50	59	41	46	32	48	36	23
% answer don't see any reason of getting enough money	47	66	43	25	27	42	31	18
Select parents whose children are in vocational school, 2 year college, 4 year college								
% reply college expense, very important	58	76	48	40	47	53	51	44
% reply available of aid, very important	54	70	45	37	34	53	48	27
% choose 2 year college or vocational school	55	57	43	67	40	52	44	37
% choose public college	82	83	83	80	67	71	64	68
% choose college in this state	94	96	95	88	79	87	81	78
% live at home while attending college, very important	58	63	47	60	30	43	33	27

-231-

BEST COPY AVAILABLE

References

Cohn, E.
1979 The Economics of Education. Cambridge, Mass.: Ballinger Publishing Co.

Goldman, J.J.
1983 "Black colleges suffer decline in enrollment." Los Angeles Times, March 20, Part I. p.1.

Magallan, R.
1983 "Education Federal Budget Report." The LA RED/THE NET, no. 66 March, p.18-26.

Mirga, T.
1983 "College-grants proposal would require students to pay 40% of tuition." Education Week, Feb. 9, #20:1-4.

National Opinion Research Center
1980 High School and Beyond: Information for Users. Base Year 1980. Report to the National Center for Educational Statistics under contract #300-78-0208. Chicago: National Opinion Research Center.

National Opinion Research Center
1981 High School and Beyond Parent Questionaire Codebook. Report to the National Center for Educational Statistics under contract #300-78-0208. Chicago: National Opinion Research Center.

Peng, S.S., Fetters, W.B. and Kilstad, A.J.
1981 High School and Beyond: A National Longitudinal Study for the 1980s. A capsule description of high school students. Washington D.C.: National Center for Education Statistics.

Porter, M.R. Porter, J., Blishen, B.R.
1973 Does Money Matters? Prospects for higher education in Ontario. York University: Institute for Behavioral Research.

Sewell, W.H.
1976 "Inequality of opportunity for higher education." In R.M. Pavalko (ed.) Sociology of Education. Itasca, Illinois: F.E. Peacock Publishers.

So, A.
1983 "The High School and Beyond data set: Its relevance for bilingual education research." NABE Journal, forthcoming.

Willingham, W.W.
1970 Free Access Higher Education. New York:College Entrance Examination Board.

Part V: Conclusion

Chapter 10: Conclusion

Using the rich information contained in the student file, the language file, the parent file, the school file, and the teacher file of the national High School and Beyond data set, this book examines some of the critical issues in Hispanic education over the past two decades.

What do the findings reported in this book suggest? Will our three audiences -- Hispanics, policy-makers, academicians -- find this book worthwhile? What is the contribution of this book to our understanding of the conditions of education for Hispanics? What are the policy implications of our findings?

In general, our findings fail to support the cultural deprivation perspective. That perspective suggests that deficienies in Hispanic culture cause academic failure, and therefore a Hispanic student must be stripped of his/her ethnic identity in order to do well in school and be successful in the American society. Our findings, in Chapter 3, however, suggest no conflict among Hispanic group identity, educational achievement, and the middle class orientation. Instead, we find out that a high-achieving Hispanic student is one who retains ethnic identity while at the same time orients to middle class norms. Our findings in Chapter 4 also contradict the deprivation perspective's assertion that

Hispanic parents do not show any interest in their children's education. We find that Hispanic parents have high aspirations for their children, as compared to the parent population in the American society and as compared to their own educational background. Therefore, our findings in Chapters 3 and 4 question the deprivation assertion that Hispanic culture and Hispanic parents are responsible for low educational achievement of Hispanic children.

If this is so, what does account for educational failure? Taken as a whole, our findings tend to support the explanation proposed by the structural perspective. As shown in Chapter 5, despite the improvement of barrio schools in finance, physical equipment, and teacher's technical qualifications, the barrio schools still provide a negative social environment which may inhibit student learning and increase the student's tendency to cut class and drop out of school. Our findings in Chapter 6 suggest that Anglo teachers tend to treat Anglo students more favorably than Hispanic students, and this differential teacher treatment can have a negative impact on student's college expectation. Consequently, our findings suggest that the American educational institutions and personnel provide a barrier to qualify education for Hispanic children.

How then can we improve the conditions of education for Hispanics? Part IV of this book addresses the some issues raised in the early 1980s related to from this point. Our findings suggest that both language minority background and socioeconomic status are factors important to

Hispanic educational achievement; we have therefore zeroed in on the relevance of bilingual education and financial aid programs. We find that those limited English speaking students in mixed language classrooms perform better in reading and math achievement than their peers with similiar background in both predominantely English and Spanish classrooms, suggests that mixed-medium classrooms serve a compensatory function for Hispanic chidren. Further, our findings on financial issues suggest that aid programs are vitally important for Hispanic parents to provide their children with higher education. The median family income of Hispanic parents is too low to send a child to college without financial aid, present financial aid programs are not sensitive to the needs of Hispanic parents, and the cutting back of aid programs might deter Hispanic parents and students from higher education.

We hope the Hispanic public will find this book worthwhile and will be gratified if a Hispanic student or parent finds the issues raised interesting and important. Most of the studies from the High School and Beyond data set tend to be highly technical and might appeal only to academicians. We have gried to presnet information in a non-technical way, in the hope that a non-statistically oriented Hispanic audience will persevere through the technical part and benefit from the discussion and conclusions.

We hope that policy-makers will see that efforts to improve

Hispanic education should be directed toward recruiting Hispanic teachers, enhancing teacher commitment to teaching, reforming teacher's attitudes toward Hispanic students, instituting a culturally relevant curriculum, strengthening bilingual language o instruction, increasing financial aids to needy students, and improving the communication network between the schools and the parents to encourage application to financial aid programs. This book suggests that Hispanic parents have high educational aspirations for their children and are eager for their children to have higher education. What is needed most in the 1980s is another reformation of Hispanic education that matches the high aspirations of the Hispanic population.

To the academicians, this book contributes by formulating new concepts and theories to clarify the issues relating to Hispanic education. We formulate the multiple reference group concept to examine the issue whether it is necessary to forsake one's ethnic identity in order to adopt the middle class norms. We not only spell out the phenomenon of high aspiration level for Hispanic parents but also examine the process of developing the high aspiration level as well as the social factors influencing it. We delineate the faulty barrio school thesis and point to the complexity of studying the barrio schools by outlining three types of high density Hispanic schools. We also explore the neglected issues in teacher-student study by raising the issue of the process of good labeling and the effectiveness of Hispanic teacher typing on

Hispanic students. We also contrast the accessibilty perpective with the self-help perspective in bringing out their similiarities and differences in the issue of financing college education by Hispanic parents. On methodological grounds, we contribute by using multiple regression analysis to study the relative impact of socioeconomic status and language minority background as well as the impact of language of instruction on educational achievement.

Finally, it seems appropriate to end this book by quoting an old sociological saying that "a way of seeing is a way of not seeing." Although we believe the High School and Beyond data set so far contains the best informaiton relating to Hispanic education, we still want to caution the reader about the possible constraints of this data set on our analyses. In our discussion of the various data files in each chapter, we suggest that the data set fails to include those Hispanic students that dropped out before grade 10, absent on the Survey day, and thus any truly Spanish monolingual students. Other limitations may be the result of the quantitative method itself. It is well known that survey questionaires cannot tape responses at a "deeper" level, such as teacher-student interactions., nor can a one-shot survey examines the historical process of how teacher labeling originates, develops, and exerts its impact on Hispanic student achievement. We do not think we should hide the above limitations imposed on our analyses because they may limit the generalizaton of our findings or may even invalidate our conclusions. However, this book has fullfil another goal if it serves to arouse the readers their interests on these crucial issues facing Hispanic education by embarking their own researches to challenge our findings. After all, science advances by criticisms and controversies, not by confirmation and hiding of issues.